BIOSOLVE

Biosolve

CATALOGUE 2015-2017

Fast Track to Quality

Greyhound
CHROMATOGRAPHY
AND ALLIED CHEMICALS

Alphabetical listings

General Products

LC Chromatography – ULC/MS -CC/SFC, LC-MS, HPLC Supra-Gradient

GC Chromatography – LV/GC for Trace Organic Analysis

Environmental Analysis – Dioxins, Pesti-S, Furans & PCB's

Spectroscopy – Spectrofluopure and Spectropure

Headspace and Purge & Trap

Peptide Synthesis

Extra-Dry and Supra-Dry

Analytical, Pharmaceutical, Chemically Pure

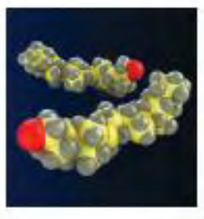
Electronic Grade Chemicals: XLSI, SLSI, ULSI, VLSI, MOS

Special sections

DNA & RNA Synthesis

Dyes

Molecular Biology



Sphingolipids & Phospholipids

Dear Customer,

This new 2015-2017 catalogue is presented to you as a reference tool for your research, routine analyses and production. It includes new products and new grades, critical parameters, safety and quality information according to each product and grade.

For over three decades, we produce and distribute selected high purity solvents, reagents and formulations for the research, pharmaceutical and biotechnology industries, and are now a major supplier in this field.

Biosolve group and more recently Biosolve Chimie, our new plant established in Lorraine France, meet the latest quality and environmental ISO standards, manufacturing under stringent quality control processes and serving you with the highest quality products on the market.

As our customer, you deserve excellent service, starting from the right packaging for your application through to swift and reliable delivery. We welcome you to contact us whenever you need our sound advice for quality, safety or product design, or to discuss the grade that best accommodates your special needs.

To contact us:

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Cher Client,

Ce nouveau catalogue 2015-2017 vous est présenté comme un outil de référence pour votre recherche, vos analyses de routines et votre production. Il inclut de nouveaux produits avec leurs paramètres critiques et leurs informations de sécurité et de qualité pour chaque produit et catégorie.

Depuis plus de trois décennies, nous produisons et distribuons des solvants de très haute pureté, des réactifs et des formulations pour la recherche, les industries pharmaceutiques, chimiques, agro-alimentaires, la biotechnologie et sommes maintenant un acteur majeur du marché mondial.

Biosolve groupe et plus récemment Biosolve Chimie, notre nouvelle usine en Lorraine, intègrent les dernières normes ISO pour l'environnement et la qualité. Notre production est soumise à des contrôles stricts de qualité à chaque étape de la fabrication, afin de vous proposer des produits de qualité irréprochable.

En tant que client, vous méritez un service d'excellence, à commencer par un emballage adapté, jusqu'à une livraison rapide et fiable. N'hésitez pas à nous contacter. Nous pourrons vous conseiller pour le choix d'un produit particulier ou vous orienter vers la gamme qui répondra le mieux à vos attentes.

Pour nous contacter :

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Table of contents

Page No.

INTRODUCTION

We produce and distribute selected high purity solvents and chemicals for research, routine laboratories and industries, to the expanding local and international market.
In addition to serving the traditional chemical field with analytical, chemically pure and pharmaceutical grades of chemicals and solvents, we have developed several specialty lines, such as:

- HPLC, LC-MS & ULC/MS grade solvents and formulations for liquid chromatography.
- Solvents for organic trace analysis and environmental analysis:
  LV-GC, Dioxins, Pesti-S, Furans & PCB's grade.
- Peptide synthesis grade solvents and chemicals.
- Ancillary reagents and formulations for DNA & RNA synthesis.
- Chemicals, dyes, buffers and transfection kits for Molecular Biology.
- Solvents and formulations for the electronic industry.
- Deuterated solvents and chemicals for NMR spectroscopy.
- Synthetic lipids for the pharmaceutical industry and R&D use.

Our customers are invited to contact us for additional information regarding specific needs and availability of products not included in the present listing such as special formulations or grades. We are constantly striving to improve the quality and the service for the products we manufacture and distribute. New items are constantly added to meet the needs of a growing and diversifying market.

QUALITY:

Our products manufactured under strict and detailed operating procedures. Bio-Lab, Biosolve and more recently Biosolve Chimie, a new plant in Lorraine, France; meet the latest environmental and quality ISO standards, serving as the development, production and distribution centers.

From the initial acceptance of selected raw material through in process control to the final packed product, all steps are perfectly documented. This ensures a high quality of production with lot-to-lot reproducibility and complete traceability for all purposes. Thanks to continual research and development, we can offer for instance, one of the very best Acetonitrile for HPLC & UHPLC available worldwide: The Supra-gradient grade and the highest brand ULC/MS grade.

Chemical and physical analyses performed according to written procedures using modern equipment, properly maintained and calibrated as per ISO procedures.
Certificates of analysis and compliance (COA and COC) are available on request, or may be down loaded on line from our internet websites, even for long past delivered goods.
Manufacturing and recommended expiry dates are clearly stated on the label whenever relevant.
Thanks to our policy of quality control, we are an approved vendor to large health organizations, leading pharmaceutical companies as well as for the chemical and electronic industries. Our manufacturing units also concerned with ecology and taking steps in order to protect the environment and respect international regulations. We have been grant with the ISO 14001 accreditation, therefore joining the growing international community of companies respectful of the environment.

GRADES DESCRIPTION

ULC/MS - CC/SFC

Highest quality for very demanding work of chromatography, analyzed for very high HPLC, UHPLC, SFC and MS performances, coupled with very low amounts of inorganic metallic contaminants. Filtered through 0.1 µm filters.

LC-MS

For routine quality work, analyzed for low metallic level and good HPLC, UHPLC and MS performance. Filtered through 0.2 µm filters.

HPLC Supra-gradient (Reag. EP/BP/USP)

Our supra-gradient quality often guarantees unique specifications including ultra-low fluorescent impurity levels, outstanding high UV transmission, minimum peak impurities, and very low drift in gradient HPLC.

HPLC-S

Standard gradient quality for higher analytical demand.

HPLC-R

Regular quality, satisfactory for most standard isocratic and routine gradient work

HPLC Preparative

Basic alternative for preparative HPLC work. Although not always printed in this catalogue, this quality is available for most solvents. Please inquire.

HPLC, HPLC-PLUS

Carefully prepared, bottled under inert gas and filtered through 0.2 µm filters.

LV-GC for organic trace analysis

Suitable for extraction-concentration analysis, analyzed for GC-FID, -ECD and –NPD suitability as well as for PDA performance for the analysis of PAH, GC-Capillary analysis, minute residue analysis, heavy hydrocarbon and mineral oil index analysis. The solvents display high transmittance and low level of fluorescent impurities.

Dioxins, Pesti-S, Furans, PCB's analysis

Analyzed for their suitability in the detection of Dioxins, Furans & PCB's. ECD and NPD tested for pesticide residue analysis.

Headspace, Purge & Trap

Headspace and Purge & Trap grade solvents are optimized for accurate analysis of residual solvents. The purity of our solvents specifically evaluated by analysis against OVI standard to ensure the absence of interfering peaks in the GC chromatogram.

DNA synthesis

Standard DNA phosphoramidites, RNA phosphoramidites, specialty Amidites & Modifiers, synthesis supports, columns, ancillary reagents & formulations for DNA & RNA synthesis.

Molecular biology

Chemicals, biochemicals, buffers and reagents for Molecular Biology.

Peptide synthesis

Reagents, chemicals and protected amino acids for peptide synthesis and combinatorial chemistry.

Dyes

Variety of Fluorescein derivatives, tri and penta Methine Cyanines, Oxonols and Styryls for absorption and fluorescence applications.

Synthetic lipids

Synthetic lipids and sphingolipids for research.

Deuterated subst. for NMR spectroscopy

Deuterated solvents and reagents fully controlled and tested for their high isotopic enrichment, chemical purity and water content.

Spectropure, Spectrofluopure

Spectro-grades solvents with guaranteed ultra-low fluorescence and/or low UV absorbance levels, also suitable for IR analysis.

AR-S glass distilled

Glass distilled analytical solvents with metal traces analysis exceeding ACS specifications.

AR

Analytical reagents generally complying with ACS specifications.

Meets EP/BP/USP/FCC spec.

Solvents and chemicals prepared and analyzed to meet the monographs of the European, British and United States pharmacopeias and/or the Food Chemicals Codex.

XLSI, SLSI, ULSI, VLSI, MOS

Solvents for use in the microelectronic industry. Metal and particle content are controlled.

Extra dry and Supra dry solvents

Dried solvent for routine synthesis in dry conditions, usually correspond to AR grade solvents which have been subsequently dried and micro-filtered. Although not specifically indicated in the catalogue, they display low content of metallic impurities. Available in 250 ml, 500 ml, 1L PTFE septum double capped bottle.

CP, General reagent

Chemically pure reagents and solvents are mostly suitable for chemical synthesis and manipulations. For demanding work the AR grade, mentioned above, may be more suitable.

GENERAL CONDITIONS OF SALE

1. **Applicable conditions**
   The conditions set out below shall apply at all time. Deviations from these conditions of sale require BIOSOLVE's written approval.
2. **Offers for sale and orders**
   All offers submitted by BIOSOLVE are not binding upon BIOSOLVE. Orders and agreements shall be binding only if and in so far as BIOSOLVE has confirmed them in writing.

3. Guarantee

BIOSOLVE guarantees the purity of its products according to the specifications of the analytical data sheet.

The buyer shall check whether the goods are of contractual quality and suitable for the intended purpose. If this is not done or not carried out in the appropriate manner, or if obvious defects are not promptly reported to BIOSOLVE within 10 days of receipt of the goods, the goods shall be considered as approved.

Complaints shall be notified in writing and include lot number of the goods, date of order and invoice. Goods can only be returned with our written approval.

4. Liability

Our liability is limited to the replacement of products delivered by us.

We can not be held responsible for improper handling and storage.

Claims for delayed undelivered goods can not be accepted. Any annulation requires our written permission.

Unforeseen plant stoppages, delays or non-deliveries from BIOSOLVE's suppliers, labor shortages, power failures, raw material shortages, strikes, lock-outs, transport delays, wars and any events of force majeure shall, for the duration of and to the extent of such impact, relieve BIOSOLVE from any obligation to deliver. Information given in the catalogue is believed to be correct and informative. We cannot accept liability of any sort for improper printing of data in this catalogue due to errors.

5. Proprietary rights

The goods delivered by us remain BIOSOLVE's property until the buyer has sent all his obligations arising from the mutual business transaction. The buyer shall collaborate in all measures which BIOSOLVE wishes to take, to protect their proprietary rights for the goods delivered.

SAFETY

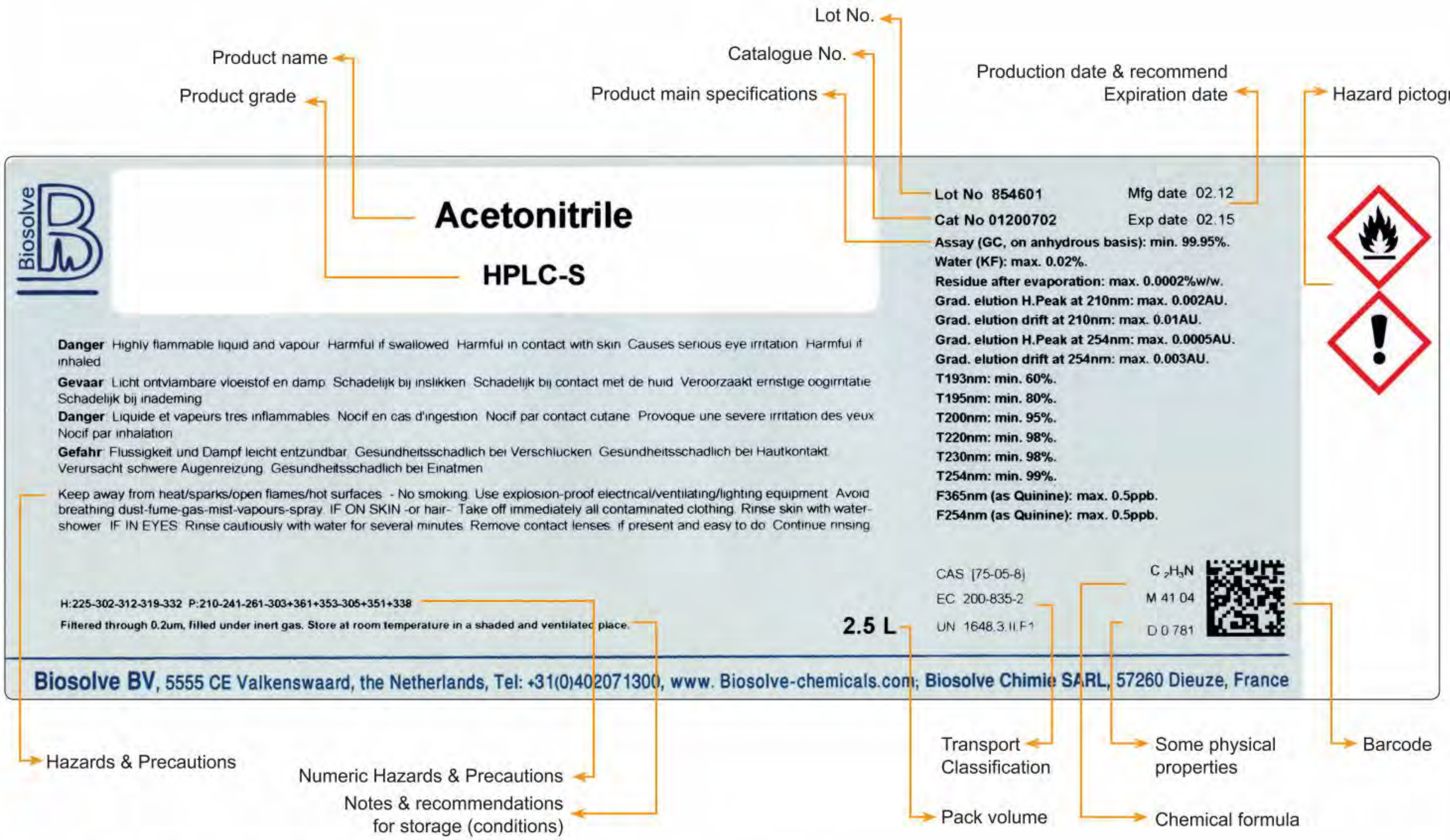
BIOSOLVE products are sold only to recognized institutions with personnel familiar with all aspects of safety when handling chemicals and reagents.

General guidelines:

1. Observe the hazard symbols on the labels and handle accordingly. A list of hazard symbols and precaution phrases are printed on the next pages.
2. Do not dispose chemicals in sinks or lavatories. Chemical waste should be dispose of in a manner consistent with federal, state, and local regulations.
3. All work with harmful reagents should be carried out in a hood or well ventilated area avoiding sources of ignition and heat when using flammable chemicals, wearing gloves and suitable clothing, including respiratory devices, whenever needed. Always ask for medical assistance if feeling unwell or after accidental contact with a hazardous chemical. Show the label to a medic whenever possible.
4. The absence of hazard symbols on the label does not necessarily mean absence of any hazards upon utilization of the product. This is particularly true when mixing chemicals and/or solvents.
5. On the professional user lies the final responsibility of the use and disposal of the products sold by BIOSOLVE. Local authorities should be consulted when in doubts.
6. Material safety data sheets for harmful products sold by BIOSOLVE are available on our internet web site at: www.Biosolve-chemicals.com.

For alphabetical index of products - see p. 475

BIOSOLVE LABEL



Nota: For reasons of clarity, not all product information may be printed on the label.

SOLVENTS BULK & SEMI-BULK

- Our best grades available in bulk
  > HPLC grade solvents for analytical lab works and preparative chromatography
  > Environmental solvents line : Pesti-S,LV-GC…
  > Ph.Eur. and USP grades for syntheses
  > Tailor-made specifications

- Large choice of packaging sizes and types
  > All packagings UN homologated
  > Non returnable packaging: 25L and 200L plastic and steel drums, 1000L plastic IBC
  > Returnable packaging: 5L to 20 000L stainless steel drums and isotank

Biosolve

PLEASE APPLY HERE !

MAIN BOTTLES AND PACKAGES

Packaging ensures the safe delivery and use of the products we deliver.
The wide spectrum of our customer's activity is reflected by the diversity of packaging we offer.
From 1 ml volume vial, to the 20,000 liter stainless steel iso-container, we offer a packaging combination adapted to the very nature and grade of the chemical delivered and the customer's needs.

Containers offered are made of: polyethylene high density (HPDE), amber glass, aluminum, stainless steel and steel.

UN approved containers and over packaging is available for dangerous goods and long distance transportation.

Quick attachments to dip-pipe delivery system are offered upon request for jars, jerrycan, drums and tanks.

We invite our customers to contact us for further or more detailed information

Use: Powders, liquids PP glass, vial
Cap: Septa /screw

Capacity	Dimensions (section x h, mm)	Cap (mm)	Standard packing	Note	Ref.
1 ml	10 x 45	D 17	As per order	PP vial	G01
3 ml	15 x 45	D 12	As per order		G02
5 ml	22 x 53	D 18	12 / pack		G03
10 ml	25 x 59	D 18	12 / pack		G04
30 ml	38 x 83	D 18	6 / pack		G05
45 ml	33 x 83	D 20	12 / pack	septa	G06
100 ml	50 x 95	D 20	12 / pack	septa	G07

Use: DNA, peptide synthesis
Bottle: Round amber glass
Cap: Bakelite
Liner: PTFE

Capacity	Dimensions (section x h, mm)	Cap (mm)	Standard packing	Ref.
8 oz (~240ml)	60 x 138	D 24	6 / carton	G08
8 oz (~240ml)	60 x 138	D 28	6 / carton	G09
16 oz (~480ml)	72 x 170	D 28	6 / carton	G10

Use: Solutions, liquids
Bottles: Square amber glass
Cap: HPDE
Liner: PP or PTFE

Capacity	Dimensions (section x h, mm)	Cap (mm)	Standard packing	Ref.
50 ml	38 x 70	D 32	6 / carton	G11
100 ml	47 x 120	D 32	6 / carton	G12
250 ml	61 x 152	D 45	6 / carton	G13
250 ml	65 x 145	D 32	6 / carton	G14
500 ml	77 x 180	D 45	6 / carton	G15
1000 ml	95 x 220	D 45	6 / carton	G16

Use: Solvents, liquids
Bottle: Round amber glass
Cap: HDPE
Liner: PP or PTFE

Capacity	Dimensions (section x h, mm)	Cap (mm)	Standard packing	Ref.
60 ml	39 x 93	D 28	6 / carton	G17
100 ml	46 x 105	D 28	6 / carton	G18
125 ml	50 x 114	D 28	6 / carton	G19
150 ml	51 x 120	D 28	6 / carton	G20
250 ml	61 x 140	D 28	6 / carton	G21
500 ml	76 x 175	D 28	6 / carton	G22
1000 ml	92 x 228	D 28	6 / carton	G23

Use: Solvents, liquids
Bottle: Round amber glass
Cap: HDPE
Liner: PP or PTFE

Capacity	Dimensions (section x h, mm)	Cap (mm)	Standard packing	Note	Ref.
1000 ml	100 x 212	D 45	6 / carton		G24
1000 ml	100 x 212	D 45	6 / carton	Safe-break	G25
2500 ml	130 x 290	D 45	4 / carton		G26
2500 ml	130 x 290	D 45	4 / carton	Safe-break	G27

Use: Solvents, liquids
Bottles: Jug round amber glass
Cap: Bakelite
Liner: PTFE

Capacity	Dimensions (section x h, mm)	Cap (mm)	Standard packing	Ref.
2.5 l	130 x 330	D 32	4 / carton	G28
4 l	150 x 344	D 32	4 / carton	G29

Use: Compatible liquids
Bottle /small j`can: HPDE
Cap: HDPE
Liner: PP or PTFE

Capacity	Dimensions (section x h, mm)	Cap (mm)	Standard packing	Ref.
500 ml	80 x 60 x 165	D 28	6 / carton	P01
500 ml	83 x 60 x 155	D 30	6 / carton	P02
1000 ml	90 x 70 x 230	D 36	6 / carton	P03
1000 ml	95 x 65 x 205	D 28	6 / carton	P04
1000 ml	98 x 68 x 205	D 30	6 / carton	P05
2000 ml	130 x 80 x 200	D 28	6 / carton	P06
2000 ml	136 x 83 x 206	D 36	6 / carton	P07

Use: Compatible liquids
J`can: HPDE
Cap: HDPE
Liner: PP or PTFE

Capacity	Dimensions (section x h, mm)	Cap (mm)	Standard packing	Ref.	Ref.
2.5 lit	120 x 120 x 205	D 36	4 / carton		P08
5 lit	200 x 120 x 280	D 36	4 / carton		P09
10 lit	220 x 180 x 350	D 45	As per order		P10
25 lit	290 x 280 x 375	D 58	As per order	Blue, UN, dip-pipe optional	P11
25 lit	270 x 220 x 450	D 58	As per order		P12
60 lit	395 x 605	D 58	As per order	UN linered in steel, dip-pipe optional	P13
220 lit	580 x 935	D 58	As per order	Blue, UN, dip-pipe optional	P14
1000 lit	1200 x 1000 x 1170	D 170	As per order	UN	P15

Use: Solvents, liquids
Bottle / drum: Aluminum, steel, stainless steel
Cap: PP or steel

Capacity	Dimensions (section x h, mm)	Cap (mm)	Standard packing	Note	Ref.
5 lit (alu)		D 45 PP/ PTFE	As per order	UN, not for alcohols or acids	M01
7 lit (s/s)		D 45 PP/ PTFE	As per order	UN, returnable, dip-pipe/level sensor, optional	M02
25 lit (s/s)	272 x 525	2" steel/ S/S	As per order	UN, returnable, dip-pipe/level sensor, optional	M03
50 lit (s/s)	395 x 532	2"steel/ S/S	As per order	UN, returnable, dip-pipe/level sensor, optional	M04
200 lit (s/s)	553 x 1060	2" and ¾" steel/ S/S	As per order	UN, returnable, dip-pipe/level sensor, optional	M05
200 lit (steel)	580 x 890	2" and ¾" steel/ S/S	As per order	UN, returnable, dip-pipe/level sensor, optional	M06
1500 lit (s/s)	1200 x 1960	Quick attachment	As per order	UN, returnable, dip-pipe and pressure valve included	M07

Use: Powders
Bottle : Round HPDE
Cap: HDPE

Capacity	Dimensions (section x h, mm)	Cap (mm)	Standard packing	Ref.
1 lit	105 x 135	D 92	6 / carton	P16
2.5 lit	120 x 220	D 92	6 / carton	P17
10 lit	200 x 400	D 125	As per order	P18

Use: Sensitive powders
Bottle: Square HPDE
Cap: HDPE

Capacity	Dimensions (section x h, mm)	Cap (mm)	Standard packing	Note	Ref.
100 ml	44 x 100	D 32	12 / carton		P19
250 ml	58 x 126	D 45	6 / carton		P20
500 ml	74 x 158	D 55	6 / carton		P21
750 ml	95 x 177	D60	6 / carton	UN	P22
1000 ml	85 x 210	D55	4 / carton		P23
1500 ml	108 x 108	D80	4 / carton		P24
2500 ml	118 x 255	D80	4 / carton		P25
5500 ml	146 x 338	D80	As per order		P26
25 lit	340 x 400	D335	As per order	UN	P27

Use: Powders, liquids PP glass, vial
Cap: Septa /screw

Capacity	Dimensions (section x h, mm)	Cap (mm)	Standard packing	Note	Ref.
1 ml	10 x 45	D 17	As per order	PP vial	G01

OUR BULK CONTAINERS

Bulk delivery in stainless steel containers are available.
Please contact us for further information

Returnable 200L
S/S UN with dip-pipe attachment

Returnable 1400L
S/S UN with
dip-pipe attachment

Returnable 18,000-24,000L Iso-Container

GHS Physical hazards

Exploding bomb

Usage

- Unstable explosives
- Explosives, divisions 1.1, 1.2, 1.3, 1.4
- Self-reactive substances and mixtures, types A, B
- Organic peroxides, types A, B

Flame

Usage

- Flammable gases, category 1
- Flammable aerosols, categories 1, 2
- Flammable liquids, categories 1, 2, 3
- Flammable solids, categories 1, 2
- Self-reactive substances and mixtures, types B, C, D, E, F
- Pyrophoric liquids, category 1
- Pyrophoric solids, category 1
- Self-heating substances and mixtures, categories 1, 2
- Substances and mixtures, which in contact with water, emit flammable gases, categories 1, 2, 3
- Organic peroxides, types B, C, D, E, F

Flame over circle

Usage

- Oxidizing gases, category 1
- Oxidizing liquids, categories 1, 2, 3
- Oxidizing solids, categories 1, 2, 3

Gas cylinder

Usage

- Compressed gases
- Liquefied gases
- Refrigerated liquefied gases
- Dissolved gases

Corrosion

Usage

- Corrosive to metals, category 1

no pictogram required

Usage

- Explosives, divisions 1.5, 1.6
- Flammable gases, category 2
- Self-reactive substances and mixtures, type G
- Organic peroxides, type G

GHS Health hazards

Skull and crossbones

Usage

- Acute toxicity (oral, dermal, inhalation), categories 1, 2, 3

Corrosion

Usage

- Skin corrosion, categories 1A, 1B, 1C
- Serious eye damage, category 1

Exclamation mark

Usage

- Acute toxicity (oral, dermal, inhalation), category 4
- Skin irritation, categories 2, 3
- Eye irritation, category 2A
- Skin sensitization, category 1
- Specific target organ toxicity following single exposure, category 3
- Respiratory tract irritation
- Narcotic effects

Not used

- with the “skull and crossbones” pictogram
- for skin or eye irritation if:
- the “corrosion” pictogram also appears
- the “health hazard” pictogram is used to indicate respiratory sensitization

Health hazard

Usage

- Respiratory sensitization, category 1
- Germ cell mutagenicity, categories 1A, 1B, 2
- Carcinogenicity, categories 1A, 1B, 2
- Reproductive toxicity, categories 1A, 1B, 2
- Specific target organ toxicity following single exposure, categories 1, 2
- Specific target organ toxicity following repeated exposure, categories 1, 2
- Aspiration hazard, categories 1, 2

no pictogram required

Usage

- Acute toxicity (oral, dermal, inhalation), category 5
- Eye irritation, category 2B
- Reproductive toxicity – effects on or via lactation

GHS Environmental hazards

Environment

Usage

- Acute hazards to the aquatic environment, category 1
- Chronic hazards to the aquatic environment, categories 1, 2

no pictogram required

Usage

- Acute hazards to the aquatic environment, categories 2, 3
- Chronic hazards to the aquatic environment, categories 3, 4

GHS Hazard statements (EN)

H200	Unstable explosives.
H201	Explosive; mass explosion hazard.
H202	Explosive, severe projection hazard.
H203	Explosive; fire, blast or projection hazard.
H204	Fire or projection hazard.
H205	May mass explode in fire.
H220	Extremely flammable gas.
H221	Flammable gas.
H222	Extremely flammable aerosol.
H223	Flammable aerosol.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H240	Heating may cause an explosion.
H241	Heating may cause a fire or explosion.
H242	Heating may cause a fire.
H250	Catches fire spontaneously if exposed to air.
H251	Self-heating: may catch fire.
H252	Self-heating in large quantities; may catch fire.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H261	In contact with water releases flammable gases.
H270	May cause or intensify fire; oxidiser.
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H280	Contains gas under pressure; may explode if heated.
H290	May be corrosive to metals.
H300	Fatal if swallowed.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects
H341	Suspected of causing genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child
H361	Suspected of damaging fertility or the unborn child
H362	May cause harm to breast-fed children.
H370	Causes damage to organs
H371	May cause damage to organs
H372	Causes damage to organs
H373	May cause damage to organs
H350i	May cause cancer by inhalation.
H360D	May damage the unborn child.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H360F	May damage fertility.

H360FD	May damage fertility. May damage the unborn child.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

GHS Precautionary statements (EN)

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P211	Do not spray on an open flame or other ignition source.
P220	Keep/Store away from clothing/.../combustible materials.
P221	Take any precaution to avoid mixing with combustibles...
P222	Do not allow contact with air.
P223	Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P230	Keep wetted with...
P231	Handle under inert gas.
P231+232	Handle under inert gas. Protect from moisture.
P232	Protect from moisture.
P233	Keep container tightly closed.
P234	Keep only in original container.
P235	Keep cool.
P235+410	Keep cool. Protect from sunlight.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/.../equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P244	Keep reduction valves free from grease and oil.
P250	Do not subject to grinding/shock/.../friction.
P251	Pressurized container: Do not pierce or burn, even after use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P262	Do not get in eyes, on skin, or on clothing.
P263	Avoid contact during pregnancy/while nursing.
P264	Wash ... thoroughly after handling.
P270	Do no eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P282	Wear cold insulating gloves/face shield/eye protection.
P283	Wear fire/flame resistant/retardant clothing.
P284	Wear respiratory protection.
P285	In case of inadequate ventilation wear respiratory protection.
P301	IF SWALLOWED:
P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301+330+331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302	IF ON SKIN:
P302+334	IF ON SKIN: Immerse in cool water/wrap in wet bandages.
P302+350	IF ON SKIN: Gently wash with plenty of soap and water.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P303+361+353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304	IF INHALED:
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P304+341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305	IF IN EYES:
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P306	IF ON CLOTHING:
P306+360	IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P307	IF exposed:
P307+311	IF exposed: Call a POISON CENTER or doctor/physician.
P308	IF exposed or concerned:
P308+313	IF exposed or concerned: Get medical advice/attention.
P309	IF exposed or if you feel unwell:
P309+311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P310	Immediately call a POISON CENTER or doctor/physician.
P311	Call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P313	Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P315	Get immediate medical advice/attention.
P320	Specific treatment is urgent (see ... on this label).
P321	Specific treatment (see ... on this label).
P322	Specific measures (see ... on this label).
P330	Rinse mouth.
P331	Do NOT induce vomiting.
P332	If skin irritation occurs:
P332+313	If skin irritation occurs: Get medical advice/attention.
P333	If skin irritation or rash occurs:
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P334	Immerse in cool water/wrap in wet bandages.
P335	Brush off loose particles from skin.
P335+334	Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
P336	Thaw frosted parts with lukewarm water. Do no rub affected area.
P337	If eye irritation persists:
P337+313	If eye irritation persists: Get medical advice/attention.
P338	Remove contact lenses, if present and easy to do. Continue rinsing.
P340	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P341	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342	If experiencing respiratory symptoms:
P342+311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P350	Gently wash with plenty of soap and water.
P351	Rinse cautiously with water for several minutes.
P352	Wash with plenty of soap and water.
P353	Rinse skin with water/shower.
P360	Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P361	Remove/Take off immediately all contaminated clothing.
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P370	In case of fire:
P370+376	In case of fire: Stop leak if safe to do so.
P370+378	In case of fire: Use ... for extinction.
P370+380	In case of fire: Evacuate area.
P370+380+375	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
P371	In case of major fire and large quantities:
P371+380+375	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
P372	Explosion risk in case of fire.
P373	DO NOT fight fire when fire reaches explosives.
P374	Fight fire with normal precautions from a reasonable distance.
P375	Fight fire remotely due to the risk of explosion.
P376	Stop leak if safe to do so.
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P378	Use ... for extinction.
P380	Evacuate area.

P381	Eliminate all ignition sources if safe to do so.
P390	Absorb spillage to prevent material damage.
P391	Collect spillage.
P401	Store …
P402	Store in a dry place.
P402+404	Store in a dry place. Store in a closed container.
P403	Store in a well-ventilated place.
P403+233	Store in a well-ventilated place. Keep container tightly closed.
P404	Store in a closed container.
P405	Store locked up.
P406	Store in corrosive resistant/… container with a resistant inner liner.
P407	Maintain air gap between stacks/pallets.
P410	Protect from sunlight.
P403+235	Store in a well-ventilated place. Keep cool.
P410+403	Protect from sunlight. Store in a well-ventilated place.
P410+412	Protect from sunlight. Do no expose to temperatures exceeding 50 oC/122oF.
P411	Store at temperatures not exceeding … oC/…oF.
P411+235	Store at temperatures not exceeding … oC/…oF. Keep cool.
P412	Do not expose to temperatures exceeding 50 oC/122oF.
P413	Store bulk masses greater than … kg/… lbs at temperatures not exceeding … oC/…oF.
P420	Store away from other materials.
P422	Store contents under …

GHS Supplemental hazard information (EN)

EUH001	Explosive when dry.
EUH006	Explosive with or without contact with air.
EUH014	Reacts violently with water.
EUH018	In use may form flammable/explosive vapour-air mixture.
EUH019	May form explosive peroxides.
EUH029	Contact with water liberates toxic gas.
EUH031	Contact with acids liberates toxic gas.
EUH032	Contact with acids liberates very toxic gas.
EUH044	Risk of explosion if heated under confinement.
EUH059	Hazardous to the ozone layer.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH070	Toxic by eye contact.
EUH071	Corrosive to the respiratory tract.
EUH201/201A	Contains lead. Should not be used on surfaces liable to be chewed or sucked by children. Warning! Contains lead.
EUH202	Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.
EUH203	Contains chromium (VI). May produce an allergic reaction.
EUH204	Contains isocyanates. May produce an allergic reaction.
EUH205	Contains epoxy constituents. May produce an allergic reaction.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).
EUH207	Warning! Contains cadmium. Dangerous fumes are formed during use. See information supplied by the manufacturer. Comply with the safety instructions.
EUH208	Contains <name of sensitising substance>. May produce an allergic reaction.
EUH209/209A	Can become highly flammable in use. Can become flammable in use.
EUH210	Safety data sheet available on request.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

GHS Gevarenaanduidingen (NL)

H200	Instabiele ontplofbare stof.
H201	Ontplofbare stof; gevaar voor massa-explosie.
H202	Ontplofbare stof, ernstig gevaar voor scherfwerking.
H203	Ontplofbare stof; gevaar voor brand, luchtdrukwerking of scherfwerking.
H204	Gevaar voor brand of scherfwerking.
H205	Gevaar voor massa-explosie bij brand.
H220	Zeer licht ontvlambaar gas.

H221	Ontvlambaar gas.
H222	Zeer licht ontvlambare aerosol.
H223	Ontvlambare aerosol.
H224	Zeer licht ontvlambare vloeistof en damp.
H225	Licht ontvlambare vloeistof en damp.
H226	Ontvlambare vloeistof en damp.
H228	Ontvlambare vaste stof.
H240	Ontploffingsgevaar bij verwarming.
H241	Brand- of ontploffingsgevaar bij verwarming.
H242	Brandgevaar bij verwarming.
H250	Vat spontaan vlam bij blootstelling aan lucht.
H251	Vatbaar voor zelfverhitting: kan vlam vatten.
H252	In grote hoeveelheden vatbaar voor zelfverhitting; kan vlam vatten.
H260	In contact met water komen ontvlambare gassen vrij die spontaan kunnen ontbranden.
H261	In contact met water komen ontvlambare gassen vrij.
H270	Kan brand veroorzaken of bevorderen; oxiderend.
H271	Kan brand of ontploffingen veroorzaken; sterk oxiderend.
H272	Kan brand bevorderen; oxiderend.
H280	Bevat gas onder druk; kan ontploffen bij verwarming.
H290	Kan bijtend zijn voor metalen.
H300	Dodelijk bij inslikken.
H301	Giftig bij inslikken.
H302	Schadelijk bij inslikken.
H304	Kan dodelijk zijn als de stof bij inslikken in de luchtwegen terechtkomt.
H310	Dodelijk bij contact met de huid.
H311	Giftig bij contact met de huid.
H312	Schadelijk bij contact met de huid.
H314	Veroorzaakt ernstige brandwonden en oogletsel
H315	Veroorzaakt huidirritatie.
H317	Kan een allergische huidreactie veroorzaken.
H318	Veroorzaakt ernstig oogletsel.
H319	Veroorzaakt ernstige oogirritatie.
H330	Dodelijk bij inademing.
H331	Giftig bij inademing.
H332	Schadelijk bij inademing.
H334	Kan bij inademing allergie- of astmasymptomen of ademhalingsmoeilijkheden veroorzaken
H335	Kan irritatie van de luchtwegen veroorzaken.
H336	Kan slaperigheid of duizeligheid veroorzaken.
H340	Kan genetische schade veroorzaken
H341	Verdacht van het veroorzaken van genetische schade
H350	Kan kanker veroorzaken
H350i	Kan kanker veroorzaken bij inademing.
H351	Verdacht van het veroorzaken van kanker
H360	Kan de vruchtbaarheid of het ongeboren kind schaden
H360D	Kan het ongeboren kind schaden.
H360Df	Kan het ongeboren kind schaden. Wordt ervan verdacht de vruchtbaarheid te schaden.
H360F	Kan de vruchtbaarheid schaden.
H360FD	Kan de vruchtbaarheid schaden. Kan het ongeboren kind schaden.
H360Fd	Kan de vruchtbaarheid schaden. Wordt ervan verdacht het ongeboren kind te schaden.
H361	Kan mogelijks de vruchtbaarheid of het ongeboren kind schaden
H361d	Wordt ervan verdacht het ongeboren kind te schaden.
H361f	Wordt ervan verdacht de vruchtbaarheid te schaden
H361fd	Wordt ervan verdacht de vruchtbaarheid te schaden. Wordt ervan verdacht het ongeboren kind te schaden.
H362	Kan schadelijk zijn via borstvoeding.
H370	Veroorzaakt schade aan organen
H371	Kan schade aan organen
H372	Veroorzaakt schade aan organen
H373	Kan schade aan organen
H400	Zeer giftig voor in het water levende organismen.
H410	Zeer giftig voor in het water levende organismen, met langdurige gevolgen.
H411	Giftig voor in het water levende organismen, met langdurige gevolgen.
H412	Schadelijk voor in het water levende organismen, met langdurige gevolgen.
H413	Kan langdurige schadelijke gevolgen voor in het water levende organismen hebben.

GHS Voorzorgsmaatregelen (NL)

P101	Bij het inwinnen van medisch advies, de verpakking of het etiket ter beschikking houden.
P102	Buiten het bereik van kinderen houden.
P103	Alvorens te gebruiken, het etiket lezen.
P201	Alvorens te gebruiken de speciale aanwijzingen raadplegen.
P202	Pas gebruiken nadat u alle veiligheidsvoorschriften gelezen en begrepen heeft
P210	Verwijderd houden van warmte/vonken/open vuur/hete oppervlakken. — Niet roken.
P211	Niet in een open vuur of op andere ontstekingsbronnen spuiten.
P220	Van kleding/…/brandbare stoffen verwijderd houden/bewaren.
P221	Vermenging met brandbare stoffen... absoluut vermijden.
P222	Contact met de lucht vermijden.
P223	Contact met water vermijden in verband met een heftige reactie en een mogelijke wolkbrand.
P230	Vochtig houden met…
P231	Onder inert gas werken.
P231+232	Onder inert gas werken. Tegen vocht beschermen.
P232	Tegen vocht beschermen.
P233	In goed gesloten verpakking bewaren.
P234	Uitsluitend in de oorspronkelijke verpakking bewaren.
P235	Koel bewaren.
P235+410	Koel bewaren. Tegen zonlicht beschermen.
P240	Opslag- en opvangreservoir aarden.
P241	Explosieveilige elektrische/ventilatie-/verlichtings-/…apparatuur gebruiken.
P242	Uitsluitend vonkvrij gereedschap gebruiken.
P243	Voorzorgsmaatregelen treffen tegen ontladingen van statische elektriciteit.
P244	Reduceerventielen vrij van olie en vet houden.
P250	Malen/schokken/…/wrijving vermijden.
P251	Houder onder druk: ook na gebruik niet doorboren of verbranden.
P260	Stof/rook/gas/nevel/damp/spuitnevel niet inademen.
P261	Inademing van stof/rook/gas/nevel/damp/spuitnevel vermijden.
P262	Contact met de ogen, de huid of de kleding vermijden.
P263	Bij zwangerschap of borstvoeding aanraking vermijden.
P264	Na het werken met dit product … grondig
P270	Niet eten, drinken of roken tijdens het gebruik van dit product.
P271	Alleen buiten of in een goed geventileerde ruimte gebruiken.
P272	Verontreinigde werkkleding mag de werkruimte niet verlaten.
P273	Voorkom lozing in het milieu.
P280	Beschermende handschoenen/beschermende kleding/oogbescherming/gelaatsbescherming dragen.
P281	De nodige persoonlijke beschermingsuitrusting gebruiken.
P282	Koude-isolerende handschoenen/gelaatsbescherming/oogbescherming dragen.
P283	Vuur/vlambestendige/brandwerende kleding dragen.
P284	Adembescherming dragen.
P285	Bij ontoereikende ventilatie een geschikte adembescherming dragen.
P301	NA INSLIKKEN:
P301+310	NA INSLIKKEN: onmiddellijk een ANTIGIFCENTRUM of een arts raadplegen.
P301+312	NA INSLIKKEN: bij onwel voelen een ANTIGIFCENTRUM of een arts raadplegen.
P301+330+331	NA INSLIKKEN: de mond spoelen — GEEN braken opwekken.
P302	BIJ CONTACT MET DE HUID:
P302+334	BIJ CONTACT MET DE HUID: in koud water onderdompelen/nat verband aanbrengen.
P302+350	BIJ CONTACT MET DE HUID: voorzichtig wassen met veel water en zeep.
P302+352	BIJ CONTACT MET DE HUID: met veel water en zeep wassen.
P303+361+353	BIJ CONTACT MET DE HUID (of het haar): verontreinigde kleding onmiddellijk uittrekken — huid met water afspoelen/afdouchen.
P304	NA INADEMING:
P304+340	NA INADEMING: het slachtoffer in de frisse lucht brengen en laten rusten in een houding die het ademen vergemakkelijkt.
P304+341	NA INADEMING: bij ademhalingsmoeilijkheden het slachtoffer in de frisse lucht brengen en laten rusten in een houding die het ademen vergemakkelijkt.
P305	BIJ CONTACT MET DE OGEN:
P305+351+338	BIJ CONTACT MET DE OGEN: voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.
P306	NA MORSEN OP KLEDING:
P306+360	NA MORSEN OP KLEDING: verontreinigde kleding en huid onmiddellijk met veel water afspoelen en pas daarna kleding uittrekken.
P307	NA blootstelling:
P307+311	NA blootstelling: een ANTIGIFCENTRUM of een arts raadplegen.
P308	NA (mogelijke) blootstelling:

P308+313	NA (mogelijke) blootstelling: een arts raadplegen.
P309	NA blootstelling of bij onwel voelen:
P309+311	NA blootstelling of bij onwel voelen: een ANTIGIFCENTRUM of een arts raadplegen.
P310	Onmiddellijk een ANTIGIFCENTRUM of een arts raadplegen.
P311	Een ANTIGIFCENTRUM of een arts raadplegen.
P312	Bij onwel voelen een ANTIGIFCENTRUM of een arts raadplegen.
P313	Een arts raadplegen.
P314	Bij onwel voelen een arts raadplegen.
P315	Onmiddellijk een arts raadplegen.
P320	Specifieke behandeling dringend vereist (zie … op dit etiket).
P321	Specifieke behandeling vereist (zie … op dit etiket).
P322	Specifieke maatregelen (zie … op dit etiket).
P330	De mond spoelen.
P331	GEEN braken opwekken.
P332	Bij huidirritatie:
P332+313	Bij huidirritatie: een arts raadplegen.
P333	Bij huidirritatie of uitslag:
P333+313	Bij huidirritatie of uitslag: een arts raadplegen.
P334	In koud water onderdompelen/nat verband aanbrengen.
P335	Losse deeltjes van de huid afvegen.
P335+334	Losse deeltjes van de huid afvegen. In koud water onderdompelen/nat verband aanbrengen.
P336	Bevroren lichaamsdelen met lauw water ontdooien. Niet wrijven op de betrokken plaatsen.
P337	Bij aanhoudende oogirritatie:
P337+313	Bij aanhoudende oogirritatie: een arts raadplegen.
P338	Contactlenzen verwijderen, indien mogelijk. Blijven spoelen.
P340	Het slachtoffer in de frisse lucht brengen en laten rusten in een houding die het ademen vergemakkelijkt.
P341	Bij ademhalingsmoeilijkheden het slachtoffer in de frisse lucht brengen en laten rusten in een houding die het ademen vergemakkelijkt.
P342	Bij ademhalingssymptomen:
P342+311	Bij ademhalingssymptomen: een ANTIGIFCENTRUM of een arts raadplegen.
P350	Voorzichtig wassen met veel water en zeep.
P351	Voorzichtig afspoelen met water gedurende een aantal minuten.
P352	Met veel water en zeep wassen.
P353	Huid met water afspoelen/afdouchen.
P360	Verontreinigde kleding en huid onmiddellijk met veel water afspoelen en pas daarna kleding uittrekken.
P361	Verontreinigde kleding onmiddellijk uittrekken.
P362	Verontreinigde kleding uittrekken en wassen alvorens deze opnieuw te gebruiken.
P363	Verontreinigde kleding wassen alvorens deze opnieuw te gebruiken.
P370	In geval van brand:
P370+376	In geval van brand: het lek dichten als dat veilig gedaan kan worden.
P370+378	In geval van brand: blussen met …
P370+380	In geval van brand: evacueren.
P370+380+375	In geval van brand: evacueren. Op afstand blussen omwille van ontploffingsgevaar.
P371	In geval van grote brand en grote hoeveelheden:
P371+380+375	In geval van grote brand en grote hoeveelheden: evacueren. Op afstand blussen omwille van ontploffingsgevaar.
P372	Ontploffingsgevaar in geval van brand.
P373	NIET blussen wanneer het vuur de ontplofbare stoffen bereikt.
P374	Met normale voorzorgen vanaf een redelijke afstand blussen.
P375	Op afstand blussen omwille van ontploffingsgevaar.
P376	Het lek dichten als dat veilig gedaan kan worden.
P377	Brand door lekkend gas: niet blussen, tenzij het lek veilig gedicht kan worden.
P378	Blussen met …
P380	Evacueren.
P381	Alle ontstekingsbronnen wegnemen als dat veilig gedaan kan worden.
P390	Gelekte/gemorste stof opnemen om materiële schade te vermijden.
P391	Gelekte/gemorste stof opruimen.
P401	… bewaren.
P402	Op een droge plaats bewaren.
P402+404	Op een droge plaats bewaren. In gesloten verpakking bewaren.
P403	Op een goed geventileerde plaats bewaren.
P403+233	Op een goed geventileerde plaats bewaren. In goed gesloten verpakking bewaren.
P403+235	Op een goed geventileerde plaats bewaren. Koel bewaren.
P404	In gesloten verpakking bewaren.

P405	Achter slot bewaren.
P406	In corrosiebestendige/... houder met corrosiebestendige binnenbekleding bewaren.
P407	Ruimte laten tussen stapels/pallets.
P410	Tegen zonlicht beschermen.
P410+403	Tegen zonlicht beschermen. Op een goed geventileerde plaats bewaren.
P410+412	Tegen zonlicht beschermen. Niet blootstellen aan temperaturen boven 50 oC/122oF.
P411	Bij maximaal ... oC/...oF bewaren.
P411+235	Bij maximaal ... oC/...oF bewaren. Koel bewaren.
P412	Niet blootstellen aan temperaturen boven 50 oC/122oF.
P413	Bulkmateriaal, indien meer dan ... kg/... lbs, bij temperaturen van maximaal ... oC bewaren.
P420	Gescheiden van ander materiaal bewaren.
P422	Onder ... bewaren.

GHS Aanvullende gevareninformatie (NL)

EUH001	In droge toestand ontplofbaar.
EUH006	Ontplofbaar met en zonder lucht.
EUH014	Reageert heftig met water.
EUH018	Kan bij gebruik een ontvlambaar/ontplofbaar damp-luchtmengsel vormen.
EUH019	Kan ontplofbare peroxiden vormen.
EUH029	Vormt giftig gas in contact met water.
EUH031	Vormt giftig gas in contact met zuren.
EUH032	Vormt zeer giftig gas in contact met zuren.
EUH044	Ontploffingsgevaar bij verwarming in afgesloten toestand.
EUH059	Gevaarlijk voor de ozonlaag.
EUH066	Herhaalde blootstelling kan een droge of een gebarsten huid veroorzaken.
EUH070	Giftig bij oogcontact.
EUH071	Bijtend voor de luchtwegen.
EUH201/201A	Bevat lood. Mag niet worden gebruikt voor voorwerpen waarin kinderen kunnen bijten of waaraan kinderen kunnen zuigen. Let op! Bevat lood.
EUH202	Cyanoacrylaat. Gevaarlijk. Kleeft binnen enkele seconden aan huid en oogleden. Buiten het bereik van kinderen houden.
EUH203	Bevat zeswaardig chroom. Kan een allergische reactie veroorzaken.
EUH204	Bevat isocyanaten. Kan een allergische reactie veroorzaken.
EUH205	Bevat epoxyverbindingen. Kan een allergische reactie veroorzaken.
EUH206	Let op! Niet in combinatie met andere producten gebruiken. Er kunnen gevaarlijke gassen (chloor) vrijkomen.
EUH207	Let op! Bevat cadmium. Bij het gebruik ontwikkelen zich gevaarlijke dampen. Zie de aanwijzingen van de fabrikant. Neem de veiligheidsvoorschriften in acht.
EUH208	Bevat <naam van de sensibiliserende stof>. Kan een allergische reactie veroorzaken.
EUH209/209A	Kan bij gebruik licht ontvlambaar worden. Kan bij gebruik ontvlambaar worden.
EUH210	Veiligheidsinformatieblad op verzoek verkrijgbaar.
EUH401	Volg de gebruiksaanwijzing om gevaar voor de menselijke gezondheid en het milieu te voorkomen.

GHS Mentions de danger (FR)

H200	Explosif instable.
H201	Explosif; danger d'explosion en masse.
H202	Explosif; danger sérieux de projection.
H203	Explosif; danger d'incendie, d'effet de souffle ou de projection.
H204	Danger d'incendie ou de projection.
H205	Danger d'explosion en masse en cas d'incendie.
H220	Gaz extrêmement inflammable.
H221	Gaz inflammable.
H222	Aérosol extrêmement inflammable.
H223	Aérosol inflammable.
H224	Liquide et vapeurs extrêmement inflammables.
H225	Liquide et vapeurs très inflammables.
H226	Liquide et vapeurs inflammables.
H228	Matière solide inflammable.
H240	Peut exploser sous l'effet de la chaleur.
H241	Peut s'enflammer ou exploser sous l'effet de la chaleur.

H242	Peut s'enflammer sous l'effet de la chaleur.
H250	S'enflamme spontanément au contact de l'air.
H251	Matière auto-échauffante; peut s'enflammer.
H252	Matière auto-échauffante en grandes quantités; peut s'enflammer.
H260	Dégage au contact de l'eau des gaz inflammables qui peuvent s'enflammer spontanément.
H261	Dégage au contact de l'eau des gaz inflammables.
H270	Peut provoquer ou aggraver un incendie; comburant.
H271	Peut provoquer un incendie ou une explosion; comburant puissant.
H272	Peut aggraver un incendie; comburant.
H280	Contient un gaz sous pression; peut exploser sous l'effet de la chaleur.
H290	Peut être corrosif pour les métaux.
H300	Mortel en cas d'ingestion.
H301	Toxique en cas d'ingestion.
H302	Nocif en cas d'ingestion.
H304	Peut être mortel en cas d'ingestion et de pénétration dans les voies respiratoires.
H310	Mortel par contact cutané.
H311	Toxique par contact cutané.
H312	Nocif par contact cutané.
H314	Provoque des brûlures de la peau et des lésions oculaires graves.
H315	Provoque une irritation cutanée.
H317	Peut provoquer une allergie cutanée.
H318	Provoque des lésions oculaires graves.
H319	Provoque une sévère irritation des yeux.
H330	Mortel par inhalation.
H331	Toxique par inhalation.
H332	Nocif par inhalation.
H334	Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.
H335	Peut irriter les voies respiratoires.
H336	Peut provoquer somnolence ou vertiges.
H340	Peut induire des anomalies génétiques
H341	Susceptible d'induire des anomalies génétiques
H350	Peut provoquer le cancer
H350i	Peut provoquer le cancer par inhalation.
H351	Susceptible de provoquer le cancer
H360	Peut nuire à la fertilité ou au foetus
H360D	Peut nuire au fœtus.
H360Df	Peut nuire au fœtus. Susceptible de nuire à la fertilité.
H360F	Peut nuire à la fertilité.
H360FD	Peut nuire à la fertilité. Peut nuire au fœtus.
H360Fd	Peut nuire à la fertilité. Susceptible de nuire au fœtus.
H361	Susceptible de nuire à la fertilité ou au foetus
H361d	Susceptible de nuire au fœtus.
H361f	Susceptible de nuire à la fertilité.
H361fd	Susceptible de nuire à la fertilité. Susceptible de nuire au fœtus.
H362	Peut être nocif pour les bébés nourris au lait maternel.
H370	Risque avéré d'effets graves pour les organes
H371	Risque présumé d'effets graves pour les organes
H372	Risque avéré d'effets graves pour les organes
H373	Risque présumé d'effets graves pour les organes
H400	Très toxique pour les organismes aquatiques.
H410	Très toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.
H411	Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.
H412	Nocif pour les organismes aquatiques, entraîne des effets néfastes à long terme.
H413	Peut être nocif à long terme pour les organismes aquatiques.

GHS Conseils de prudence (FR)

P101	En cas de consultation d'un médecin, garder à disposition le récipient ou l'étiquette.
P102	Tenir hors de portée des enfants.
P103	Lire l'étiquette avant utilisation.
P201	Se procurer les instructions avant utilisation.
P202	Ne pas manipuler avant d'avoir lu et compris toutes les précautions de sécurité.
P210	Tenir à l'écart de la chaleur/des étincelles/des flammes nues/des surfaces chaudes. — Ne pas fumer.

P211	Ne pas vaporiser sur une flamme nue ou sur toute autre source d'ignition.
P220	Tenir/stocker à l'écart des vêtements/…/matières combustibles
P221	Vermenging met brandbare stoffen… absoluut vermijden.
P222	Ne pas laisser au contact de l'air.
P223	Éviter tout contact avec l'eau, à cause du risque de réaction violente et d'inflammation spontanée.
P230	Maintenir humidifié avec…
P231	Manipuler sous gaz inerte.
P231+232	Manipuler sous gaz inerte. Protéger de l'humidité.
P232	Protéger de l'humidité.
P233	Maintenir le récipient fermé de manière étanche.
P234	Conserver uniquement dans le récipient d'origine.
P235	Tenir au frais.
P235+410	Tenir au frais. Protéger du rayonnement solaire.
P240	Mise à la terre/liaison équipotentielle du récipient et du matériel de réception.
P241	Utiliser du matériel électrique/de ventilation/d'éclairage/…/antidéflagrant.
P242	Ne pas utiliser d'outils produisant des étincelles.
P243	Prendre des mesures de précaution contre les décharges électrostatiques.
P244	S'assurer de l'absence de graisse ou d'huile sur les soupapes de réduction.
P250	Éviter les abrasions/les chocs/…/les frottements.
P251	Récipient sous pression: ne pas perforer, ni brûler, même après usage.
P260	Ne pas respirer les poussières/fumées/gaz/brouillards/vapeurs/aérosols.
P261	Éviter de respirer les poussières/fumées/gaz/brouillards/vapeurs/aérosols.
P262	Éviter tout contact avec les yeux, la peau ou les vêtements.
P263	Éviter tout contact avec la substance au cours de la grossesse/pendant l'allaitement.
P264	Se laver … soigneusement après manipulation.
P270	Ne pas manger, boire ou fumer en manipulant ce produit.
P271	Utiliser seulement en plein air ou dans un endroit bien ventilé.
P272	Les vêtements de travail contaminés ne devraient pas sortir du lieu de travail.
P273	Éviter le rejet dans l'environnement.
P280	Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.
P281	Utiliser l'équipement de protection individuel requis.
P282	Porter des gants isolants contre le froid/un équipement de protection du visage/des yeux.
P283	Porter des vêtements résistant au feu/aux flammes/ignifuges.
P284	Porter un équipement de protection respiratoire.
P285	Lorsque la ventilation du local est insuffisante, porter un équipement de protection respiratoire.
P301	EN CAS D'INGESTION:
P301+310	EN CAS D'INGESTION: appeler immédiatement un CENTRE ANTIPOISON ou un médecin.
P301+312	EN CAS D'INGESTION: appeler un CENTRE ANTIPOISON ou un médecin en cas de malaise.
P301+330+331	EN CAS D'INGESTION: rincer la bouche. NE PAS faire vomir.
P302	EN CAS DE CONTACT AVEC LA PEAU:
P302+334	EN CAS DE CONTACT AVEC LA PEAU: rincer à l'eau fraîche/poser une compresse humide.
P302+350	EN CAS DE CONTACT AVEC LA PEAU: laver avec précaution et abondamment à l'eau et au savon.
P302+352	EN CAS DE CONTACT AVEC LA PEAU: laver abondamment à l'eau et au savon.
P303+361+353	EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux): enlever immédiatement les vêtements contaminés. Rincer la peau à l'eau/se doucher.
P304	EN CAS D'INHALATION:
P304+340	EN CAS D'INHALATION: transporter la victime à l'extérieur et la maintenir au repos dans une position où elle peut confortablement respirer.
P304+341	EN CAS D'INHALATION: s'il y a difficulté à respirer, transporter la victime à l'extérieur et la maintenir au repos dans une position où elle peut confortablement respirer.
P305	EN CAS DE CONTACT AVEC LES YEUX:
P305+351+338	EN CAS DE CONTACT AVEC LES YEUX: rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.
P306	EN CAS DE CONTACT AVEC LES VÊTEMENTS:
P306+360	EN CAS DE CONTACT AVEC LES VÊTEMENTS: rincer immédiatement et abondamment avec de l'eau les vêtements contaminés et la peau avant de les enlever.
P307	EN CAS d'exposition:
P307+311	EN CAS d'exposition: appeler un CENTRE ANTIPOISON ou un médecin.
P308	EN CAS d'exposition prouvée ou suspectée:
P308+313	EN CAS d'exposition prouvée ou suspectée: consulter un médecin.
P309	EN CAS d'exposition ou d'un malaise:
P309+311	EN CAS d'exposition ou de malaise: appeler un CENTRE ANTIPOISON ou un médecin.
P310	Appeler immédiatement un CENTRE ANTIPOISON ou un médecin.
P311	Appeler un CENTRE ANTIPOISON ou un médecin.

P312	Appeler un CENTRE ANTIPOISON ou un médecin en cas de malaise.
P313	Consulter un médecin.
P314	Consulter un médecin en cas de malaise.
P315	Consulter immédiatement un médecin.
P320	Un traitement spécifique est urgent (voir … sur cette étiquette).
P321	Traitement spécifique (voir … sur cette étiquette).
P322	Mesures spécifiques (voir … sur cette étiquette).
P330	Rincer la bouche.
P331	NE PAS faire vomir.
P332	En cas d'irritation cutanée:
P332+313	En cas d'irritation cutanée: consulter un médecin.
P333	En cas d'irritation ou d'éruption cutanée:
P333+313	En cas d'irritation ou d'éruption cutanée: consulter un médecin.
P334	Rincer à l'eau fraîche/poser une compresse humide.
P335	Enlever avec précaution les particules déposées sur la peau.
P335+334	Enlever avec précaution les particules déposées sur la peau. Rincer à l'eau fraîche/poser une compresse humide.
P336	Dégeler les parties gelées avec de l'eau tiède. Ne pas frotter les zones touchées.
P337	Si l'irritation oculaire persiste:
P337+313	Si l'irritation oculaire persiste: consulter un médecin.
P338	Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.
P340	Transporter la victime à l'extérieur et la maintenir au repos dans une position où elle peut confortablement respirer.
P341	S'il y a difficulté à respirer, transporter la victime à l'extérieur et la maintenir au repos dans une position où elle peut confortablement respirer.
P342	En cas de symptômes respiratoires:
P342+311	En cas de symptômes respiratoires: appeler un CENTRE ANTIPOISON ou un médecin.
P350	Laver avec précaution et abondamment à l'eau et au savon.
P351	Rincer avec précaution à l'eau pendant plusieurs minutes.
P352	Laver abondamment à l'eau et au savon.
P353	Rincer la peau à l'eau/se doucher.
P360	Rincer immédiatement et abondamment avec de l'eau les vêtements contaminés et la peau avant de les enlever.
P361	Enlever immédiatement les vêtements contaminés.
P362	Enlever les vêtements contaminés et les laver avant réutilisation
P363	Laver les vêtements contaminés avant réutilisation.
P370	En cas d'incendie:
P370+376	En cas d'incendie: obturer la fuite si cela peut se faire sans danger.
P370+378	En cas d'incendie: utiliser … pour l'extinction.
P370+380	En cas d'incendie: évacuer la zone.
P370+380+375	En cas d'incendie: évacuer la zone. Combattre l'incendie à distance à cause du risque d'explosion.
P371	En cas d'incendie important et s'il s'agit de grandes quantités:
P371+380+375	En cas d'incendie important et s'il s'agit de grandes quantités: évacuer la zone. Combattre l'incendie à distance à cause du risque d'explosion.
P372	Risque d'explosion en cas d'incendie.
P373	NE PAS combattre l'incendie lorsque le feu atteint les explosifs.
P374	Combattre l'incendie à distance en prenant les précautions normales.
P375	Combattre l'incendie à distance à cause du risque d'explosion.
P376	Obturer la fuite si cela peut se faire sans danger.
P377	Fuite de gaz enflammé: Ne pas éteindre si la fuite ne peut pas être arrêtée sans danger.
P378	Utiliser … pour l'extinction.
P380	Évacuer la zone.
P381	Éliminer toutes les sources d'ignition si cela est faisable sans danger.
P390	Absorber toute substance répandue pour éviter qu'elle attaque les matériaux environnants.
P391	Recueillir le produit répandu.
P401	Stocker …
P402	Stocker dans un endroit sec.
P402+404	Stocker dans un endroit sec. Stocker dans un récipient fermé.
P403	Stocker dans un endroit bien ventilé.
P403+233	Stocker dans un endroit bien ventilé. Maintenir le récipient fermé de manière étanche.
P403+235	Stocker dans un endroit bien ventilé. Tenir au frais.
P404	Stocker dans un récipient fermé.
P405	Garder sous clef.
P406	Stocker dans un récipient résistant à la corrosion/récipient en … avec doublure intérieure résistant à la corrosion.
P407	Maintenir un intervalle d'air entre les piles/palettes.
P410	Protéger du rayonnement solaire.
P410+403	Protéger du rayonnement solaire. Stocker dans un endroit bien ventilé.

P410+412	Protéger du rayonnement solaire. Ne pas exposer à une température supérieure à 50 oC/122 oF.
P411	Stocker à une température ne dépassant pas … oC/… oF.
P411+235	Stocker à une température ne dépassant pas … oC/… oF. Tenir au frais.
P412	Ne pas exposer à une température supérieure à 50 oC/122 oF.
P413	Stocker les quantités en vrac de plus de … kg/… lb à une température ne dépassant pas … oC/… oF.
P420	Stocker à l'écart des autres matières.
P422	Stocker le contenu sous …

GHS Informations additionnelles sur les dangers (FR)

EUH001	Explosif à l'état sec.
EUH006	Danger d'explosion en contact ou sans contact avec l'air.
EUH014	Réagit violemment au contact de l'eau.
EUH018	Lors de l'utilisation, formation possible de mélange vapeur-air inflammable/explosif.
EUH019	Peut former des peroxydes explosifs.
EUH029	Au contact de l'eau, dégage des gaz toxiques.
EUH031	Au contact d'un acide, dégage un gaz toxique.
EUH032	Au contact d'un acide, dégage un gaz très toxique.
EUH044	Risque d'explosion si chauffé en ambiance confinée.
EUH059	Dangereux pour la couche d'ozone.
EUH066	L'exposition répétée peut provoquer dessèchement ou gerçures de la peau.
EUH070	Toxique par contact oculaire.
EUH071	Corrosif pour les voies respiratoires.
EUH201/201A	Contient du plomb. Ne pas utiliser sur les objets susceptibles d'être mâchés ou sucés par des enfants. Attention! Contient du plomb.
EUH202	Cyanoacrylate. Danger. Colle à la peau et aux yeux en quelques secondes. À conserver hors de portée des enfants.
EUH203	Contient du chrome (VI). Peut produire une réaction allergique.
EUH204	Contient des isocyanates. Peut produire une réaction allergique.
EUH205	Contient des composés époxydiques. Peut produire une réaction allergique.
EUH206	Attention! Ne pas utiliser en combinaison avec d'autres produits. Peut libérer des gaz dangereux (chlore).
EUH207	Attention! Contient du cadmium. Des fumées dangereuses se développent pendant l'utilisation. Voir les informations fournies par le fabricant. Respectez les consignes de sécurité.
EUH208	Contient <nom de la substance sensibilisante>. Peut produire une réaction allergique.
EUH209/209A	Peut devenir facilement inflammable en cours d'utilisation. Peut devenir inflammable en cours d'utilisation.
EUH210	Fiche de données de sécurité disponible sur demande.
EUH401	Respectez les instructions d'utilisation pour éviter les risques pour la santé humaine et l'environnement.

GHS Gefahrenhinweise (DE)

H200	Instabil, explosiv.
H201	Explosiv, Gefahr der Massenexplosion.
H202	Explosiv; große Gefahr durch Splitter, Spreng- und Wurfstücke.
H203	Explosiv; Gefahr durch Feuer, Luftdruck oder Splitter, Spreng- und Wurfstücke.
H204	Gefahr durch Feuer oder Splitter, Spreng- und Wurfstücke.
H205	Gefahr der Massenexplosion bei Feuer.
H220	Extrem entzündbares Gas.
H221	Entzündbares Gas.
H222	Extrem entzündbares Aerosol.
H223	Entzündbares Aerosol.
H224	Flüssigkeit und Dampf extrem entzündbar.
H225	Flüssigkeit und Dampf leicht entzündbar.
H226	Flüssigkeit und Dampf entzündbar.
H228	Entzündbarer Feststoff.
H240	Erwärmung kann Explosion verursachen.
H241	Erwärmung kann Brand oder Explosion verursachen.
H242	Erwärmung kann Brand verursachen.
H250	Entzündet sich in Berührung mit Luft von selbst.
H251	Selbsterhitzungsfähig; kann in Brand geraten.
H252	In großen Mengen selbsterhitzungsfähig; kann in Brand geraten.
H260	In Berührung mit Wasser entstehen entzündbare Gase, die sich spontan entzünden können.

H261	In Berührung mit Wasser entstehen entzündbare Gase.
H270	Kann Brand verursachen oder verstärken; Oxidationsmittel.
H271	Kann Brand oder Explosion verursachen; starkes Oxidationsmittel.
H272	Kann Brand verstärken; Oxidationsmittel.
H280	Enthält Gas unter Druck; kann bei Erwärmung explodieren.
H290	Kann gegenüber Metallen korrosiv sein.
H300	Lebensgefahr bei Verschlucken.
H301	Giftig bei Verschlucken.
H302	Gesundheitsschädlich bei Verschlucken.
H304	Kann bei Verschlucken und Eindringen in die Atemwege tödlich sein.
H310	Lebensgefahr bei Hautkontakt.
H311	Giftig bei Hautkontakt.
H312	Gesundheitsschädlich bei Hautkontakt.
H314	Verursacht schwere Verätzungen der Haut und schwere Augenschäden.
H315	Verursacht Hautreizungen.
H317	Kann allergische Hautreaktionen verursachen.
H318	Verursacht schwere Augenschäden.
H319	Verursacht schwere Augenreizung.
H330	Lebensgefahr bei Einatmen.
H331	Giftig bei Einatmen.
H332	Gesundheitsschädlich bei Einatmen.
H334	Kann bei Einatmen Allergie, asthmaartige Symptome oder Atembeschwerden verursachen.
H335	Kann die Atemwege reizen.
H336	Kann Schläfrigkeit und Benommenheit verursachen.
H340	Kann genetische Defekte verursachen
H341	Kann vermutlich genetische Defekte verursachen
H350	Kann Krebs erzeugen
H350i	Kann bei Einatmen Krebs erzeugen.
H351	Kann vermutlich Krebs erzeugen
H360	Kann die Fruchtbarkeit beeinträchtigen oder das Kind im Mutterleib schädigen
H360D	Kann das Kind im Mutterleib schädigen.
H360Df	Kann das Kind im Mutterleib schädigen. Kann vermutlich die Fruchtbarkeit beeinträchtigen.
H360F	Kann die Fruchtbarkeit beeinträchtigen.
H360FD	Kann die Fruchtbarkeit beeinträchtigen. Kann das Kind im Mutterleib schädigen.
H360Fd	Kann die Fruchtbarkeit beeinträchtigen. Kann vermutlich das Kind im Mutterleib schädigen.
H361	Kann vermutlich die Fruchtbarkeit beeinträchtigen oder das Kind im Mutterleib schädigen
H361d	Kann vermutlich das Kind im Mutterleib schädigen.
H361f	Kann vermutlich die Fruchtbarkeit beeinträchtigen.
H361fd	Kann vermutlich die Fruchtbarkeit beeinträchtigen. Kann vermutlich das Kind im Mutterleib schädigen
H362	Kann Säuglinge über die Muttermilch schädigen.
H370	Schädigt die Organe
H371	Kann die Organe schädigen
H372	Schädigt die Organe
H373	Kann die Organe schädigen
H400	Sehr giftig für Wasserorganismen.
H410	Sehr giftig für Wasserorganismen mit langfristiger Wirkung.
H411	Giftig für Wasserorganismen, mit langfristiger Wirkung.
H412	Schädlich für Wasserorganismen, mit langfristiger Wirkung.
H413	Kann für Wasserorganismen schädlich sein, mit langfristiger Wirkung.

GHS Sicherheitshinweise (DE)

P101	Ist ärztlicher Rat erforderlich, Verpackung oder Kennzeichnungsetikett bereithalten.
P102	Darf nicht in die Hände von Kindern gelangen.
P103	Vor Gebrauch Kennzeichnungsetikett lesen.
P201	Vor Gebrauch besondere Anweisungen einholen.
P202	Vor Gebrauch alle Sicherheitshinweise lesen und verstehen.
P210	Von Hitze/Funken/offener Flamme/heißen Oberflächen fernhalten. Nicht rauchen.
P211	Nicht gegen offene Flamme oder andere Zündquelle sprühen.
P220	Von Kleidung/.../brennbaren Materialien fernhalten/entfernt aufbewahren.
P221	Mischen mit brennbaren Stoffen/... unbedingt verhindern.
P222	Kontakt mit Luft nicht zulassen.
P223	Kontakt mit Wasser wegen heftiger Reaktion und möglichem Aufflammen unbedingt verhindern.

P230	Feucht halten mit …
P231	Unter inertem Gas handhaben.
P231+232	Unter inertem Gas handhaben. Vor Feuchtigkeit schützen.
P232	Vor Feuchtigkeit schützen.
P233	Behälter dicht verschlossen halten.
P234	Nur im Originalbehälter aufbewahren.
P235	Kühl halten.
P235+410	Kühl halten. Vor Sonnenbestrahlung schützen.
P240	Behälter und zu befüllende Anlage erden.
P241	Explosionsgeschützte elektrische Betriebsmittel/Lüftungsanlagen/Beleuchtung/... verwenden.
P242	Nur funkenfreies Werkzeug verwenden.
P243	Maßnahmen gegen elektrostatische Aufladungen treffen.
P244	Druckminderer frei von Fett und Öl halten.
P250	Nicht schleifen/stoßen/…/reiben.
P251	Behälter steht unter Druck: Nicht durchstechen oder verbrennen, auch nicht nach der Verwendung.
P260	Staub/Rauch/Gas/Nebel/Dampf/Aerosol nicht einatmen.
P261	Einatmen von Staub/Rauch/Gas/Nebel/Dampf/Aerosol vermeiden.
P262	Nicht in die Augen, auf die Haut oder auf die Kleidung gelangen lassen.
P263	Kontakt während der Schwangerschaft/und der Stillzeit vermeiden.
P264	Nach Gebrauch … gründlich waschen.
P270	Bei Gebrauch nicht essen, trinken oder rauchen.
P271	Nur im Freien oder in gut belüfteten Räumen verwenden.
P272	Kontaminierte Arbeitskleidung nicht außerhalb des Arbeitsplatzes tragen.
P273	Freisetzung in die Umwelt vermeiden.
P280	Schutzhandschuhe/Schutzkleidung/Augenschutz/Gesichtsschutz
P281	Vorgeschriebene persönliche Schutzausrüstung verwenden.
P282	Schutzhandschuhe/Gesichtsschild/Augenschutz mit Kälteisolierung tragen.
P283	Schwer entflammbare/flammhemmende Kleidung tragen.
P284	Atemschutz tragen.
P285	Bei unzureichender Belüfung Atemschutz tragen.
P301	BEI VERSCHLUCKEN:
P301+310	BEI VERSCHLUCKEN: Sofort GIFTINFORMATIONSZENTRUM oder Arzt anrufen.
P301+312	BEI VERSCHLUCKEN: Bei Unwohlsein GIFTINFORMATIONSZENTRUM oder Arzt anrufen.
P301+330+331	BEI VERSCHLUCKEN: Mund ausspülen. KEIN Erbrechen herbeiführen.
P302	BEI BERÜHRUNG MIT DER HAUT:
P302+334	BEI KONTAKT MIT DER HAUT: In kaltes Wasser tauchen/nassen Verband anlegen.
P302+350	BEI KONTAKT MIT DER HAUT: Behutsam mit viel Wasser und Seife waschen.
P302+352	BEI KONTAKT MIT DER HAUT: Mit viel Wasser und Seife waschen.
P303+361+353	BEI KONTAKT MIT DER HAUT (oder dem Haar): Alle beschmutzten, getränkten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen/ duschen.
P304	BEI EINATMEN:
P304+340	BEI EINATMEN: An die frische Luft bringen und in einer Position ruhigstellen, die das Atmen erleichtert.
P304+341	BEI EINATMEN: Bei Atembeschwerden an die frische Luft bringen und in einer Position ruhigstellen, die das Atmen erleichtert.
P305	BEI KONTAKT MIT DEN AUGEN:
P305+351+338	BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen. Vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.
P306	BEI KONTAMINIERTER KLEIDUNG:
P306+360	BEI KONTAKT MIT DER KLEIDUNG: Kontaminierte Kleidung und Haut sofort mit viel Wasser abwaschen und danach Kleidung ausziehen.
P307	BEI Exposition:
P307+311	BEI Exposition: GIFTINFORMATIONSZENTRUM oder Arzt anrufen.
P308	BEI Exposition oder falls betroffen
P308+313	BEI Exposition oder falls betroffen: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
P309	BEI Exposition oder Unwohlsein:
P309+311	BEI Exposition oder Unwohlsein: GIFTINFORMATIONSZENTRUM oder Arzt anrufen.
P310	Sofort GIFTINFORMATIONSZENTRUM oder Arzt anrufen.
P311	GIFTINFORMATIONSZENTRUM oder Arzt anrufen.
P312	Bei Unwohlsein GIFTINFORMATIONSZENTRUM oder Arzt anrufen.
P313	Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
P314	Bei Unwohlsein ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
P315	Sofort ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
P320	Besondere Behandlung dringend erforderlich (siehe … auf diesem Kennzeichnungsetikett).
P321	Besondere Behandlung (siehe … auf diesem Kennzeichnungsetikett).

P322	Gezielte Maßnahmen (siehe … auf diesem Kennzeichnungsetikett).
P330	Mund ausspülen.
P331	KEIN Erbrechen herbeiführen.
P332	Bei Hautreizung:
P332+313	Bei Hautreizung: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
P333	Bei Hautreizung oder -ausschlag:
P333+313	Bei Hautreizung oder -ausschlag: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
P334	In kaltes Wasser tauchen/nassen Verband anlegen.
P335	Lose Partikel von der Haut abbürsten.
P335+334	Lose Partikel von der Haut abbürsten. In kaltes Wasser tauchen/nassen Verband anlegen.
P336	Vereiste Bereiche mit lauwarmem Wasser auftauen. Betroffenen Bereich nicht reiben.
P337	Bei anhaltender Augenreizung:
P337+313	Bei anhaltender Augenreizung: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
P338	Eventuell Vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter ausspülen.
P340	Die betroffene Person an die frische Luft bringen und in einer Position ruhigstellen, die das Atmen erleichtert.
P341	Bei Atembeschwerden an die frische Luft bringen und in einer Position ruhigstellen, die das Atmen erleichtert.
P342	Bei Symptomen der Atemwege:
P342+311	Bei Symptomen der Atemwege: GIFTINFORMATIONSZENTRUM oder Arzt anrufen.
P350	Behutsam mit viel Wasser und Seife waschen.
P351	Einige Minuten lang behutsam mit Wasser ausspülen.
P352	Mit viel Wasser und Seife waschen.
P353	Haut mit Wasser abwaschen/duschen.
P360	Kontaminierte Kleidung und Haut sofort mit viel Wasser abwaschen und danach Kleidung ausziehen.
P361	Alle kontaminierten Kleidungsstücke sofort ausziehen.
P362	Kontaminierte Kleidung ausziehen und vor erneutem Tragen waschen.
P363	Kontaminierte Kleidung vor erneutem Tragen waschen.
P370	Bei Brand:
P370+376	Bei Brand: Undichtigkeit beseitigen, wenn gefahrlos möglich.
P370+378	Bei Brand: … zum Löschen verwenden.
P370+380	Bei Brand: Umgebung räumen.
P370+380+375	Bei Brand: Umgebung räumen. Wegen Explosionsgefahr Brand aus der Entfernung bekämpfen.
P371	Bei Großbrand und großen Mengen:
P371+380+375	Bei Großbrand und großen Mengen: Umgebung räumen. Wegen Explosionsgefahr Brand aus der Entfernung bekämpfen.
P372	Explosionsgefahr bei Brand.
P373	KEINE Brandbekämpfung, wenn das Feuer explosive Stoffe/Gemische/Erzeugnisse erreicht.
P374	Brandbekämpfung mit üblichen Vorsichtsmaßnahmen aus angemessener Entfernung.
P375	Wegen Explosionsgefahr Brand aus der Entfernung bekämpfen.
P376	Undichtigkeit beseitigen, wenn gefahrlos möglich.
P377	Brand von ausströmendem Gas: Nicht löschen, bis Undichtigkeit gefahrlos beseitigt werden kann.
P378	… zum Löschen verwenden.
P380	Umgebung räumen.
P381	Alle Zündquellen entfernen, wenn gefahrlos möglich.
P390	Verschüttete Mengen aufnehmen, um Materialschäden zu vermeiden.
P391	Verschüttete Mengen aufnehmen.
P401	… aufbewahren.
P402	An einem trockenen Ort aufbewahren.
P402+404	In einem geschlossenen Behälter an einem trockenen Ort aufbewahren.
P403	An einem gut belüfteten Ort aufbewahren.
P403+233	Behälter dicht verschlossen an einem gut belüfteten Ort aufbewahren.
P403+235	Kühl an einem gut belüfteten Ort aufgewahren.
P404	In einem geschlossenen Behälter aufbewahren.
P405	Unter Verschluss aufbewahren.
P406	In korrosionsbeständigem/… Behälter mit korrosionsbeständiger Auskleidung aufbewahren.
P407	Luftspalt zwischen Stapeln/Paletten lassen.
P410	Vor Sonnenbestrahlung schützen.
P410+403	Vor Sonnenbestrahlung geschützt an einem gut belüfteten Ort aufbewahren.
P410+412	Vor Sonnenbestrahlung schützen und nicht Temperaturen von mehr als 50 oC aussetzen.
P411	Bei Temperaturen von nicht mehr als … oC/…aufbewahren.
P411+235	Kühl und bei Temperaturen von nicht mehr als … oC aufbewahren.
P412	Nicht Temperaturen von mehr als 50 oC aussetzen.
P413	Schüttgut in Mengen von mehr als … kg bei Temperaturen von nicht mehr als … oC aufbewahren
P420	Von anderen Materialien entfernt aufbewahren.
P422	Inhalt in/unter … aufbewahren

GHS Ergänzende Gefahrenmerkmale (DE)

EUH001	In trockenem Zustand explosionsgefährlich.
EUH006	Mit und ohne Luft explosionsfähig.
EUH014	Reagiert heftig mit Wasser.
EUH018	Kann bei Verwendung explosionsfähige/entzündbare Dampf/Luft-Gemische bilden.
EUH019	Kann explosionsfähige Peroxide bilden.
EUH029	Entwickelt bei Berührung mit Wasser giftige Gase.
EUH031	Entwickelt bei Berührung mit Säure giftige Gase.
EUH032	Entwickelt bei Berührung mit Säure sehr giftige Gase.
EUH044	Explosionsgefahr bei Erhitzen unter Einschluss.
EUH059	Die Ozonschicht schädigend.
EUH066	Wiederholter Kontakt kann zu spröder oder rissiger Haut führen.
EUH070	Giftig bei Berührung mit den Augen.
EUH071	Wirkt ätzend auf die Atemwege.
EUH201/201A	Enthält Blei. Nicht für den Anstrich von Gegenständen verwenden, die von Kindern gekaut oder gelutscht werden könnten. Achtung! Enthält Blei.
EUH202	Cyanacrylat. Gefahr. Klebt innerhalb von Sekunden Haut und Augenlider zusammen. Darf nicht in die Hände von Kindern gelangen.
EUH203	Enthält Chrom (VI). Kann allergische Reaktionen hervorrufen.
EUH204	Enthält Isocyanate. Kann allergische Reaktionen hervorrufen.
EUH205	Enthält epoxidhaltige Verbindungen. Kann allergische Reaktionen hervorrufen.
EUH206	Achtung! Nicht zusammen mit anderen Produkten verwenden, da gefährliche Gase (Chlor) freigesetzt werden können.
EUH207	Achtung! Enthält Cadmium. Bei der Verwendung entstehen gefährliche Dämpfe. Hinweise des Herstellers beachten. Sicherheitsanweisungen einhalten.
EUH208	Enthält <Name des sensibilisierenden Stoffes>. Kann allergische Reaktionen hervorrufen.
EUH209/209A	Kann bei Verwendung leicht entzündbar werden. Kann bei Verwendung entzündbar werden.
EUH210	Sicherheitsdatenblatt auf Anfrage erhältlich.
EUH401	Zur Vermeidung von Risiken für Mensch und Umwelt die Gebrauchsanleitung einhalten.

GHS Indicazioni di pericolo (IT)

H200	Esplosivo instabile.
H201	Esplosivo; pericolo di esplosione di massa.
H202	Esplosivo; grave pericolo di proiezione.
H203	Esplosivo; pericolo di incendio, di spostamento d'aria o di proiezione.
H204	Pericolo di incendio o di proiezione.
H205	Pericolo di esplosione di massa in caso d'incendio.
H220	Gas altamente infiammabile.
H221	Gas infiammabile.
H222	Aerosol altamente infiammabile.
H223	Aerosol infiammabile.
H224	Liquido e vapori altamente infiammabili.
H225	Liquido e vapori facilmente infiammabili.
H226	Liquido e vapori infiammabili.
H228	Solido infiammabile.
H240	Rischio di esplosione per riscaldamento.
H241	Rischio d'incendio o di esplosione per riscaldamento.
H242	Rischio d'incendio per riscaldamento.
H250	Spontaneamente infiammabile all'aria.
H251	Autoriscaldante; può infiammarsi.
H252	Autoriscaldante in grandi quantità; può infiammarsi.
H260	A contatto con l'acqua libera gas infiammabili che possono infiammarsi spontaneamente.
H261	A contatto con l'acqua libera gas infiammabili.
H270	Può provocare o aggravare un incendio; comburente.
H271	Può provocare un incendio o un'esplosione; molto comburente.
H272	Può aggravare un incendio; comburente.
H280	Contiene gas sotto pressione; può esplodere se riscaldato.
H290	Può essere corrosivo per i metalli.
H300	Letale se ingerito.

H301	Tossico se ingerito.
H302	Nocivo se ingerito.
H304	Può essere letale in caso di ingestione e di penetrazione nelle vie respiratorie.
H310	Letale per contatto con la pelle.
H311	Tossico per contatto con la pelle.
H312	Nocivo per contatto con la pelle.
H314	Provoca gravi ustioni cutanee e gravi lesioni oculari.
H315	Provoca irritazione cutanea.
H317	Può provocare una reazione allergica cutanea.
H318	Provoca gravi lesioni oculari.
H319	Provoca grave irritazione oculare.
H330	Letale se inalato.
H331	Tossico se inalato.
H332	Nocivo se inalato.
H334	Può provocare sintomi allergici o asmatici o difficoltà respiratorie se inalato.
H335	Può irritare le vie respiratorie.
H336	Può provocare sonnolenza o vertigini.
H340	Può provocare alterazioni genetiche
H341	Sospettato di provocare alterazioni genetiche
H350	Può provocare il cancro
H350i	Può provocare il cancro se inalato.
H351	Sospettato di provocare il cancro
H360	Può nuocere alla fertilità o al feto
H360D	Può nuocere al feto.
H360Df	Può nuocere al feto. Sospettato di nuocere alla fertilità.
H360F	Può nuocere alla fertilità
H360FD	Può nuocere alla fertilità. Può nuocere al feto.
H360Fd	Può nuocere alla fertilità. Sospettato di nuocere al feto.
H361	Sospettato di nuocere alla fertilità o al feto
H361d	Sospettato di nuocere al feto
H361f	Sospettato di nuocere alla fertilità
H361fd	Sospettato di nuocere alla fertilità Sospettato di nuocere al feto.
H362	Può essere nocivo per i lattanti allattati al seno.
H370	Provoca danni agli organi
H371	Può provocare danni agli organi
H372	Provoca danni agli organi
H373	Può provocare danni agli organi
H400	Molto tossico per gli organismi acquatici.
H410	Molto tossico per gli organismi acquatici con effetti di lunga durata.
H411	Tossico per gli organismi acquatici con effetti di lunga durata.
H412	Nocivo per gli organismi acquatici con effetti di lunga durata.
H413	Può essere nocivo per gli organismi acquatici con effetti di lunga durata.

GHS Consigli di prudenza (IT)

P101	In caso di consultazione di un medico, tenere a disposizione il contenitore o l'etichetta del prodotto.
P102	Tenere fuori dalla portata dei bambini.
P103	Leggere l'etichetta prima dell'uso.
P201	Procurarsi istruzioni specifiche prima dell'uso.
P202	Non manipolare prima di avere letto e compreso tutte le avvertenze.
P210	Tenere lontano da fonti di calore/scintille/fiamme libere/superfici riscaldate. —Non fumare.
P211	Non vaporizzare su una fiamma libera o altra fonte di accensione.
P220	Tenere/conservare lontano da indumenti/.../materiali combustibili.
P221	Prendere ogni precauzione per evitare di miscelare con sostanze combustibili...
P222	Evitare il contatto con l'aria.
P223	Evitare qualsiasi contatto con l'acqua: pericolo di reazione violenta e di infiammazione spontanea.
P230	Mantenere umido con...
P231	Manipolare in atmosfera di gas inerte.
P231+232	Manipolare in atmosfera di gas inerte. Tenere al riparo dall'umidità.
P232	Proteggere dall'umidità.
P233	Tenere il recipiente ben chiuso.
P234	Conservare soltanto nel contenitore originale.

P235	Conservare in luogo fresco.
P235+410	Tenere in luogo fresco. Proteggere dai raggi solari.
P240	Mettere a terra/massa il contenitore e il dispositivo ricevente.
P241	Utilizzare impianti elettrici/di ventilazione/d'illuminazione/…/a prova di esplosione.
P242	Utilizzare solo utensili antiscintillamento.
P243	Prendere precauzioni contro le scariche elettrostatiche.
P244	Mantenere le valvole di riduzione libere da grasso e olio.
P250	Evitare le abrasioni/gli urti/…/gli attriti.
P251	Recipiente sotto pressione: non perforare né bruciare, neppure dopo l'uso.
P260	Non respirare la polvere/i fumi/i gas/la nebbia/i vapori/gli aerosol.
P261	Evitare di respirare la polvere/i fumi/i gas/la nebbia/i vapori/gli aerosol.
P262	Evitare il contatto con gli occhi, la pelle o gli indumenti.
P263	Evitare il contatto durante la gravidanza/l'allattamento.
P264	Lavare accuratamente … dopo l'uso.
P270	Non mangiare, né bere, né fumare durante l'uso.
P271	Utilizzare soltanto all'aperto o in luogo ben ventilato.
P272	Gli indumenti da lavoro contaminati non devono essere portati fuori dal luogo di lavoro.
P273	Non disperdere nell'ambiente.
P280	Indossare guanti/indumenti protettivi/Proteggere gli occhi/il viso.
P281	Utilizzare il dispositivo di protezione individuale richiesto.
P282	Utilizzare guanti termici/schermo facciale/Proteggere gli occhi.
P283	Indossare indumenti completamente ignifughi o in tessuti ritardanti di fiamma.
P284	Utilizzare un apparecchio respiratorio.
P285	In caso di ventilazione insufficiente utilizzare un apparecchio respiratorio.
P301	IN CASO DI INGESTIONE:
P301+310	IN CASO DI INGESTIONE: contattare immediatamente un CENTRO ANTIVELENI o un medico
P301+312	IN CASO DI INGESTIONE accompagnata da malessere: contattare un CENTRO ANTIVELENI o un medico.
P301+330+331	IN CASO DI INGESTIONE: sciacquare la bocca. NON provocare il vomito.
P302	IN CASO DI CONTATTO CON LA PELLE:
P302+334	IN CASO DI CONTATTO CON LA PELLE: immergere in acqua fredda/avvolgere con un bendaggio umido.
P302+350	IN CASO DI CONTATTO CON LA PELLE: lavare delicatamente e abbondantemente con acqua e sapone.
P302+352	IN CASO DI CONTATTO CON LA PELLE: lavare abbondantemente con acqua e sapone.
P303+361+353	IN CASO DI CONTATTO CON LA PELLE (o con i capelli): togliersi di dosso immediatamente tutti gli indumenti contaminati. Sciacquare la pelle/fare una doccia.
P304	IN CASO DI INALAZIONE:
P304+340	IN CASO DI INALAZIONE: trasportare l'infortunato all'aria aperta e mantenerlo a riposo in posizione che favorisca la respirazione.
P304+341	IN CASO DI INALAZIONE: se la respirazione è difficile, trasportare l'infortunato all'aria aperta e mantenerlo a riposo in posizione che favorisca la respirazione.
P305	IN CASO DI CONTATTO CON GLI OCCHI:
P305+351+338	IN CASO DI CONTATTO CON GLI OCCHI: sciacquare accuratamente per parecchi minuti. Togliere le eventuali lenti a contatto se è agevole farlo. Continuare a sciacquare.
P306	IN CASO DI CONTATTO CON GLI INDUMENTI:
P306+360	IN CASO DI CONTATTO CON GLI INDUMENTI: sciacquare immediatamente e abbondantemente gli indumenti contaminati e la pelle prima di togliersi gli indumenti.
P307	IN CASO di esposizione:
P307+311	IN CASO di esposizione, contattare un CENTRO ANTIVELENI o un medico.
P308	IN CASO di esposizione o di possibile esposizione:
P308+313	IN CASO di esposizione o di possibile esposizione, consultare un medico.
P309	IN CASO di esposizione o di malessere:
P309+311	IN CASO di esposizione o di malessere, contattare un CENTRO ANTIVELENI o un medico.
P310	Contattare immediatamente un CENTRO ANTIVELENI o un medico.
P311	Contattare un CENTRO ANTIVELENI o un medico.
P312	In caso di malessere, contattare un CENTRO ANTIVELENI o un medico.
P313	Consultare un medico.
P314	In caso di malessere, consultare un medico.
P315	Consultare immediatamente un medico.
P320	Trattamento specifico urgente (vedere… su questa etichetta).
P321	Trattamento specifico (vedere …su questa etichetta).
P322	Misure specifiche (vedere …su questa etichetta).
P330	Sciacquare la bocca.
P331	NON provocare il vomito.

P332	In caso di irritazione della pelle:
P332+313	In caso di irritazione della pelle: consultare un medico.
P333	In caso di irritazione o eruzione della pelle:
P333+313	In caso di irritazione o eruzione della pelle: consultare un medico.
P334	Immergere in acqua fredda/avvolgere con un bendaggio umido.
P335	Rimuovere le particelle depositate sulla pelle.
P335+334	Rimuovere le particelle depositate sulla pelle. Immergere in acqua fredda/avvolgere con un bendaggio umido.
P336	Sgelare le parti congelate usando acqua tiepida. Non sfregare la parte interessata.
P337	Se l'irritazione degli occhi persiste:
P337+313	Se l'irritazione degli occhi persiste, consultare un medico.
P338	Togliere le eventuali lenti a contatto se è agevole farlo. Continuare a sciacquare.
P340	Die betroffene Person an die frische Luft bringen und in einer Position ruhigstellen, die das Atmen erleichtert.
P341	Se la respirazione è difficile, trasportare l'infortunato all'aria aperta e mantenerlo a riposo in posizione che favorisca la respirazione.
P342	In caso di sintomi respiratori:
P342+311	In caso di sintomi respiratori: contattare un CENTRO ANTIVELENI o un medico.
P350	Lavare delicatamente e abbondantemente con acqua e sapone.
P351	Sciacquare accuratamente per parecchi minuti.
P352	Lavare abbondantemente con acqua e sapone.
P353	Sciacquare la pelle/fare una doccia.
P360	Sciacquare immediatamente e abbondantemente gli indumenti contaminati e la pelle prima di togliersi gli indumenti.
P361	Togliersi di dosso immediatamente tutti gli indumenti contaminati.
P362	Togliersi di dosso gli indumenti contaminati e lavarli prima di indossarli nuovamente.
P363	Lavare gli indumenti contaminati prima di indossarli nuovamente.
P370	In caso di incendio:
P370+376	In caso di incendio: bloccare la perdita se non c'è pericolo.
P370+378	In caso di incendio: estinguere con…
P370+380	Evacuare la zona in caso di incendio.
P370+380+375	In caso di incendio: evacuare la zona. Rischio di esplosione. Utilizzare i mezzi estinguenti a grande distanza.
P371	In caso di incendio grave e di quantità rilevanti:
P371+380+375	In caso di incendio grave e di grandi quantità: evacuare la zona. Rischio di esplosione. Utilizzare i mezzi estinguenti a grande distanza.
P371+380+375	In caso di incendio grave e di grandi quantità: evacuare la zona. Rischio di esplosione. Utilizzare i mezzi estinguenti a grande distanza.
P372	Rischio di esplosione in caso di incendio.
P373	NON utilizzare mezzi estinguenti se l'incendio raggiunge materiali esplosivi.
P374	Utilizzare i mezzi estinguenti con le precauzioni abituali a distanza ragionevole.
P375	Rischio di esplosione. Utilizzare i mezzi estinguenti a grande distanza.
P376	Bloccare la perdita se non c'è pericolo.
P377	In caso d'incendio dovuto a perdita di gas, non estinguere a meno che non sia possibile bloccare la perdita senza pericolo.
P378	Estinguere con…
P380	Evacuare la zona.
P381	Eliminare ogni fonte di accensione se non c'è pericolo.
P390	Assorbire la fuoriuscita per evitare danni materiali.
P391	Raccogliere il materiale fuoriuscito.
P401	Conservare…
P402	Conservare in luogo asciutto.
P402+404	Conservare in luogo asciutto e in recipiente chiuso.
P403	Conservare in luogo ben ventilato.
P403+233	Tenere il recipiente ben chiuso e in luogo ben ventilato.
P403+235	Conservare in luogo fresco e ben ventilato.
P404	Conservare in un recipiente chiuso.
P405	Conservare sotto chiave.
P406	Conservare in recipiente resistente alla corrosione/… provvisto di rivestimento interno resistente.
P407	Mantenere uno spazio libero tra gli scaffali/i pallet.
P410	Proteggere dai raggi solari.
P410+403	Proteggere dai raggi solari. Conservare in luogo ben ventilato.
P410+412	Proteggere dai raggi solari. Non esporre a temperature superiori a 50 oC/122oF.
P411	Conservare a temperature non superiori a … oC/…oF.
P411+235	Conservare in luogo fresco a temperature non superiori a … oC/…oF.
P412	Non esporre a temperature superiori a 50 oC/122oF.
P413	Conservare le rinfuse di peso superiore a …kg/…lb a temperature non superiori a … oC/oF.
P420	Conservare lontano da altri materiali.
P422	Conservare sotto…

GHS Informazioni supplementari sui pericoli (IT)

EUH001	Esplosivo allo stato secco.
EUH006	Esplosivo a contatto o senza contatto con l'aria.
EUH014	Reagisce violentemente con l'acqua.
EUH018	Durante l'uso può formarsi una miscela vapore-aria esplosiva/infiammabile.
EUH019	Può formare perossidi esplosivi.
EUH029	A contatto con l'acqua libera un gas tossico.
EUH031	A contatto con acidi libera gas tossici.
EUH032	A contatto con acidi libera gas molto tossici.
EUH044	Rischio di esplosione per riscaldamento in ambiente confinato.
EUH059	Pericoloso per lo strato di ozono.
EUH066	L'esposizione ripetuta può provocare secchezza o screpolature della pelle.
EUH070	Tossico per contatto oculare.
EUH071	Corrosivo per le vie respiratorie.
EUH201/201A	Contiene piombo. Non utilizzare su oggetti che possono essere masticati o succhiati dai bambini. Attenzione! Contiene piombo.
EUH202	Cianoacrilato. Pericolo. Incolla la pelle e gli occhi in pochi secondi. Tenere fuori dalla portata dei bambini.
EUH203	Contiene cromo (VI). Può provocare una reazione allergica.
EUH204	Contiene isocianati. Può provocare una reazione allergica.
EUH205	Contiene componenti epossidici. Può provocare una reazione allergica.
EUH206	Attenzione! Non utilizzare in combinazione con altri prodotti. Possono liberarsi gas pericolosi (cloro).
EUH207	Attenzione! Contiene cadmio. Durante l'uso si sviluppano fumi pericolosi. Leggere le informazioni fornite dal fabbricante. Rispettare le disposizioni di sicurezza.
EUH208	Contiene <denominazione della sostanza sensibilizzante>. Può provocare una reazione allergica.
EUH209/209A	Può diventare facilmente infiammabile durante l'uso. Può diventare infiammabile durante l'uso.
EUH210	Scheda dati di sicurezza disponibile su richiesta.
EUH401	Per evitare rischi per la salute umana e per l'ambiente, seguire le istruzioni per l'uso.

GHS Indicaciones de peligro (ES)

H200	Explosivo inestable.
H201	Explosivo; peligro de explosión en masa.
H202	Explosivo; grave peligro de proyección.
H203	Explosivo; peligro de incendio, de onda expansiva o de proyección.
H204	Peligro de incendio o de proyección.
H205	Peligro de explosión en masa en caso de incendio.
H220	Gas extremadamente inflamable.
H221	Gas inflamable.
H222	Aerosol extremadamente inflamable.
H223	Aerosol inflamable.
H224	Líquido y vapores extremadamente inflamables.
H225	Líquido y vapores muy inflamables.
H226	Líquidos y vapores inflamables.
H228	Sólido inflamable.
H240	Peligro de explosión en caso de calentamiento.
H241	Peligro de incendio o explosión en caso de calentamiento.
H242	Peligro de incendio en caso de calentamiento.
H250	Se inflama espontáneamente en contacto con el aire.
H251	Se calienta espontáneamente; puede inflamarse.
H252	Se calienta espontáneamente en grandes cantidades; puede inflamarse.
H260	En contacto con el agua desprende gases inflamables que pueden inflamarse espontáneamente.
H261	En contacto con el agua desprende gases inflamables.
H270	Puede provocar o agravar un incendio; comburente.
H271	Puede provocar un incendio o una explosión; muy comburente.
H272	Puede agravar un incendio; comburente.
H280	Contiene gas a presión; peligro de explosión en caso de calentamiento.
H290	Puede ser corrosivo para los metales.
H300	Mortal en caso de ingestión.

H301	Tóxico en caso de ingestión.
H302	Nocivo en caso de ingestión.
H304	Puede ser mortal en caso de ingestión y penetración en las vías respiratorias.
H310	Mortal en contacto con la piel.
H311	Tóxico en contacto con la piel.
H312	Nocivo en contacto con la piel.
H314	Provoca quemaduras graves en la piel y lesiones oculares graves.
H315	Provoca irritación cutánea.
H317	Puede provocar una reacción alérgica en la piel.
H318	Provoca lesiones oculares graves.
H319	Provoca irritación ocular grave.
H330	Mortal en caso de inhalación.
H331	Tóxico en caso de inhalación.
H332	Nocivo en caso de inhalación.
H334	Puede provocar síntomas de alergia o asma o dificultades respiratorias en caso de inhalación.
H335	Puede irritar las vías respiratorias.
H336	Puede provocar somnolencia o vértigo.
H340	Puede provocar defectos genéticos
H341	Se sospecha que provoca defectos genéticos
H350	Puede provocar cáncer
H350i	Puede provocar cáncer por inhalación.
H351	Se sospecha que provoca cáncer
H360	Puede perjudicar la fertilidad o dañar al feto
H360D	Puede dañar al feto.
H360Df	Puede dañar al feto. Se sospecha que perjudica a la fertilidad.
H360F	Puede perjudicar a la fertilidad.
H360FD	Puede perjudicar a la fertilidad. Puede dañar al feto.
H360Fd	Puede perjudicar a la fertilidad. Se sospecha que daña al feto.
H361	Se sospecha que perjudica la fertilidad o daña al feto
H361d	Se sospecha que daña al feto.
H361f	Se sospecha que perjudica a la fertilidad.
H361fd	Se sospecha que perjudica a la fertilidad. Se sospecha que daña al feto.
H362	Puede perjudicar a los niños alimentados con leche materna.
H370	Provoca daños en los órganos
H371	Puede provocar daños en los órganos
H372	Provoca daños en los órganos
H373	Puede provocar daños en los órganos
H400	Muy tóxico para los organismos acuáticos.
H410	Muy tóxico para los organismos acuáticos, con efectos nocivos duraderos.
H411	Tóxico para los organismos acuáticos, con efectos nocivos duraderos.
H412	Nocivo para los organismos acuáticos, con efectos nocivos duraderos.
H413	Puede ser nocivo para los organismos acuáticos, con efectos nocivos duraderos.

GHS Consejos de prudencia (ES)

P101	Si se necesita consejo médico, tener a mano el envase o la etiqueta.
P102	Mantener fuera del alcance de los niños.
P103	Leer la etiqueta antes del uso.
P201	Pedir instrucciones especiales antes del uso.
P202	No manipular la sustancia antes de haber leído y comprendido todas las instrucciones de seguridad.
P210	Mantener alejado de fuentes de calor, chispas, llama abierta o superficies calientes. — No fumar.
P211	No pulverizar sobre una llama abierta u otra fuente de ignición.
P220	Mantener o almacenar alejado de la ropa/.../materiales combustibles.
P221	Tomar todas las precauciones necesarias para no mezclar con materias combustibles...
P222	No dejar que entre en contacto con el aire.
P223	Mantener alejado de cualquier posible contacto con el agua, pues reacciona violentamente y puede provocar una llamarada.
P230	Mantener humedecido con...
P231	Manipular en gas inerte.
P231+232	Manipular en gas inerte. Protéger de la humedad.
P232	Proteger de la humedad.
P233	Mantener el recipiente herméticamente cerrado.
P234	Conservar únicamente en el recipiente original.

P235	Mantener en lugar fresco.
P235+410	Conservar en un lugar fresco. Proteger de la luz del sol.
P240	Conectar a tierra/enlace equipotencial del recipiente y del equipo de recepción.
P241	Utilizar un material eléctrico, de ventilación o de iluminación/…/antideflagrante.
P242	Utilizar únicamente herramientas que no produzcan chispas.
P243	Tomar medidas de precaución contra descargas electrostáticas.
P244	Mantener las válvulas de reducción limpias de grasa y aceite.
P250	Evitar la abrasión/el choque/…/la fricción.
P251	Recipiente a presión: no perforar ni quemar, aun después del uso.
P260	No respirar el polvo/el humo/el gas/la niebla/los vapores/el aerosol.
P261	Evitar respirar el polvo/el humo/el gas/la niebla/los vapores/el aerosol.
P262	Evitar el contacto con los ojos, la piel o la ropa.
P263	Evitar el contacto durante el embarazo/la lactancia.
P264	Lavarse … concienzudamente tras la manipulación.
P270	No comer, beber ni fumar durante su utilización.
P271	Utilizar únicamente en exteriores o en un lugar bien ventilado.
P272	Las prendas de trabajo contaminadas no podrán sacarse del lugar de trabajo.
P273	Evitar su liberación al medio ambiente.
P280	Llevar guantes/prendas/gafas/máscara de protección.
P281	Utilizar el equipo de protección individual obligatorio.
P282	Llevar guantes que aíslen del frío/gafas/máscara.
P283	Llevar prendas ignífugas/resistentes al fuego/resistentes a las llamas.
P284	Llevar equipo de protección respiratoria.
P285	En caso de ventilación insuficiente, llevar equipo de protección respiratoria.
P301	EN CASO DE INGESTIÓN:
P301+310	EN CASO DE INGESTIÓN: Llamar inmediatamente a un CENTRO DE INFORMACIÓN TOXICOLÓGICA o a un médico.
P301+312	EN CASO DE INGESTIÓN: Llamar a un CENTRO DE INFORMACIÓN TOXICOLÓGICA o a un médico si se encuentra mal.
P301+330+331	EN CASO DE INGESTIÓN: Enjuagarse la boca. NO provocar el vómito.
P302	EN CASO DE CONTACTO CON LA PIEL:
P302+334	EN CASO DE CONTACTO CON LA PIEL: Sumergir en agua fresca/aplicar compresas húmedas.
P302+350	EN CASO DE CONTACTO CON LA PIEL: Lavar suavemente con agua y jabón abundantes.
P302+352	EN CASO DE CONTACTO CON LA PIEL: Lavar con agua y jabón abundantes.
P303+361+353	EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitarse inmediatamente las prendas contaminadas. Aclararse la piel con agua o ducharse.
P304	EN CASO DE INHALACIÓN:
P304+340	EN CASO DE INHALACIÓN: Transportar a la víctima al exterior y mantenerla en reposo en una posición confortable para respirar.
P304+341	EN CASO DE INHALACIÓN: Si respira con dificultad, transportar a la víctima al exterior y mantenerla en reposo en una posición confortable para respirar.
P305	EN CASO DE CONTACTO CON LOS OJOS:
P305+351+338	EN CASO DE CONTACTO CON LOS OJOS: Aclarar cuidadosamente con agua durante varios minutos. Quitar las lentes de contacto, si lleva y resulta fácil. Seguir aclarando.
P306	EN CASO DE CONTACTO CON LA ROPA:
P306+360	EN CASO DE CONTACTO CON LA ROPA: Aclarar inmediatamente con agua abundante las prendas y la piel contaminadas antes de quitarse la ropa.
P307	EN CASO DE exposición:
P307+311	EN CASO DE exposición: Llamar a un CENTRO DE INFORMACIÓN TOXICOLÓGICA o a un médico.
P308	EN CASO DE exposición manifiesta o presunta:
P308+313	EN CASO DE exposición manifiesta o presunta: Consultar a un médico.
P309	EN CASO DE exposición o malestar:
P309+311	EN CASO DE exposición o si se encuentra mal: Llamar a un CENTRO DE INFORMACIÓN TOXICOLÓGICA o a un médico.
P310	Llamar inmediatamente a un CENTRO DE INFORMACION TOXICOLOGICA o a un médico.
P311	Llamar a un CENTRO DE INFORMACION TOXICOLOGICA o a un médico.
P312	Llamar a un CENTRO DE INFORMACION TOXICOLOGICA o a un médico en caso de malestar.
P313	Consultar a un médico.
P314	Consultar a un médico en caso de malestar.
P315	Consultar a un médico inmediatamente.
P320	Se necesita urgentemente un tratamiento especifico (ver … en esta etiqueta).
P321	Se necesita un tratamiento especifico (ver … en esta etiqueta).
P322	Se necesitan medidas especificas (ver … en esta etiqueta).
P330	Enjuagarse la boca.
P331	NO provocar el vómito.
P332	En caso de irritación cutánea:

P332+313	En caso de irritación cutánea: Consultar a un médico.
P333	En caso de irritación o erupción cutánea:
P333+313	En caso de irritación o erupción cutánea: Consultar a un médico.
P334	Sumergir en agua fresca/aplicar compresas húmedas.
P335	Sacudir las partículas que se hayan depositado en la piel.
P335+334	Sacudir las partículas que se hayan depositado en la piel. Sumergir en agua fresca/aplicar compresas húmedas.
P336	Descongelar las partes heladas con agua tibia. No frotar la zona afectada.
P337	Si persiste la irritación ocular:
P337+313	Si persiste la irritación ocular: Consultar a un médico.
P338	Quitar las lentes de contacto, si lleva y resulta fácil. Seguir aclarando.
P340	Transportar a la víctima al exterior y mantenerla en reposo en una posición confortable para respirar.
P341	Si respira con dificultad, transportar a la víctima al exterior y mantenerla en reposo en una posición confortable para respirar.
P342	En caso de síntomas respiratorios:
P342+311	En caso de síntomas respiratorios: Llamar a un CENTRO DE INFORMACIÓN TOXICOLÓGICA o a un médico.
P350	Lavar suavemente con agua y jabón abundantes.
P351	Aclarar cuidadosamente con agua durante varios minutos.
P352	Lavar con agua y jabón abundantes.
P353	Aclararse la piel con agua/ducharse.
P360	Aclarar inmediatamente con agua abundante las prendas y la piel contaminadas antes de quitarse la ropa.
P361	Quitarse inmediatamente las prendas contaminadas.
P362	Quitarse las prendas contaminadas y lavarlas antes de volver a usarlas.
P363	Lavar las prendas contaminadas antes de volver a usarlas.
P370	En caso de incendio:
P370+376	En caso de incendio: Detener la fuga, si no hay peligro en hacerlo.
P370+378	En caso de incendio: Utilizar ... para apagarlo.
P370+380	En caso de incendio: Evacuar la zona.
P370+380+375	En caso de incendio: Evacuar la zona. Luchar contra el incendio a distancia, dado el riesgo de explosión.
P371	En caso de incendio importante y en grandes cantidades:
P371+380+375	En caso de incendio importante y en grandes cantidades: Evacuar la zona. Luchar contra el incendio a distancia, dado el riesgo de explosión.
P371+380+375	En caso de incendio importante y en grandes cantidades: Evacuar la zona. Luchar contra el incendio a distancia, dado el riesgo de explosión.
P372	Riesgo de explosión en caso de incendio.
P373	NO luchar contra el incendio cuando el fuego llega a los explosivos.
P374	Luchar contra el incendio desde una distancia razonable, tomando las precauciones habituales.
P375	Luchar contra el incendio a distancia, dado el riesgo de explosión.
P376	Detener la fuga, si no hay peligro en hacerlo.
P377	Fuga de gas en llamas: No apagar, salvo si la fuga puede detenerse sin peligro.
P378	Utilizar ... para apagarlo.
P380	Evacuar la zona.
P381	Eliminar todas las fuentes de ignición si no hay peligro en hacerlo.
P390	Absorber el vertido para que no dañe otros materiales.
P391	Recoger el vertido.
P401	Almacenar ...
P402	Almacenar en un lugar seco.
P402+404	Almacenar en un lugar seco. Almacenar en un recipiente cerrado.
P403	Almacenar en un lugar bien ventilado.
P403+233	Almacenar en un lugar bien ventilado. Mantener el recipiente cerrado herméticamente.
P403+235	Almacenar en un lugar bien ventilado. Mantener en lugar fresco.
P404	Almacenar en un recipiente cerrado.
P405	Guardar bajo llave.
P406	Almacenar en un recipiente resistente a la corrosión/... con revestimiento interior resistente.
P407	Dejar una separación entre los bloques/los palés de carga.
P410	Proteger de la luz del sol.
P410+403	Proteger de la luz del sol. Almacenar en un lugar bien ventilado.
P410+412	Proteger de la luz del sol. No exponer a temperaturas superiores a 50 oC/122oF.
P411	Almacenar a temperaturas no superiores a ... oC/...oF.
P411+235	Almacenar a temperaturas no superiores a ... oC/...oF. Mantener en lugar fresco.
P412	No exponer a temperaturas superiores a 50 oC/122oF.
P413	Almacenar las cantidades a granel superiores a ... kg/... lbs a temperaturas no superiores a ... oC/...oF.
P420	Almacenar alejado de otros materiales.
P422	Almacenar el contenido en ...

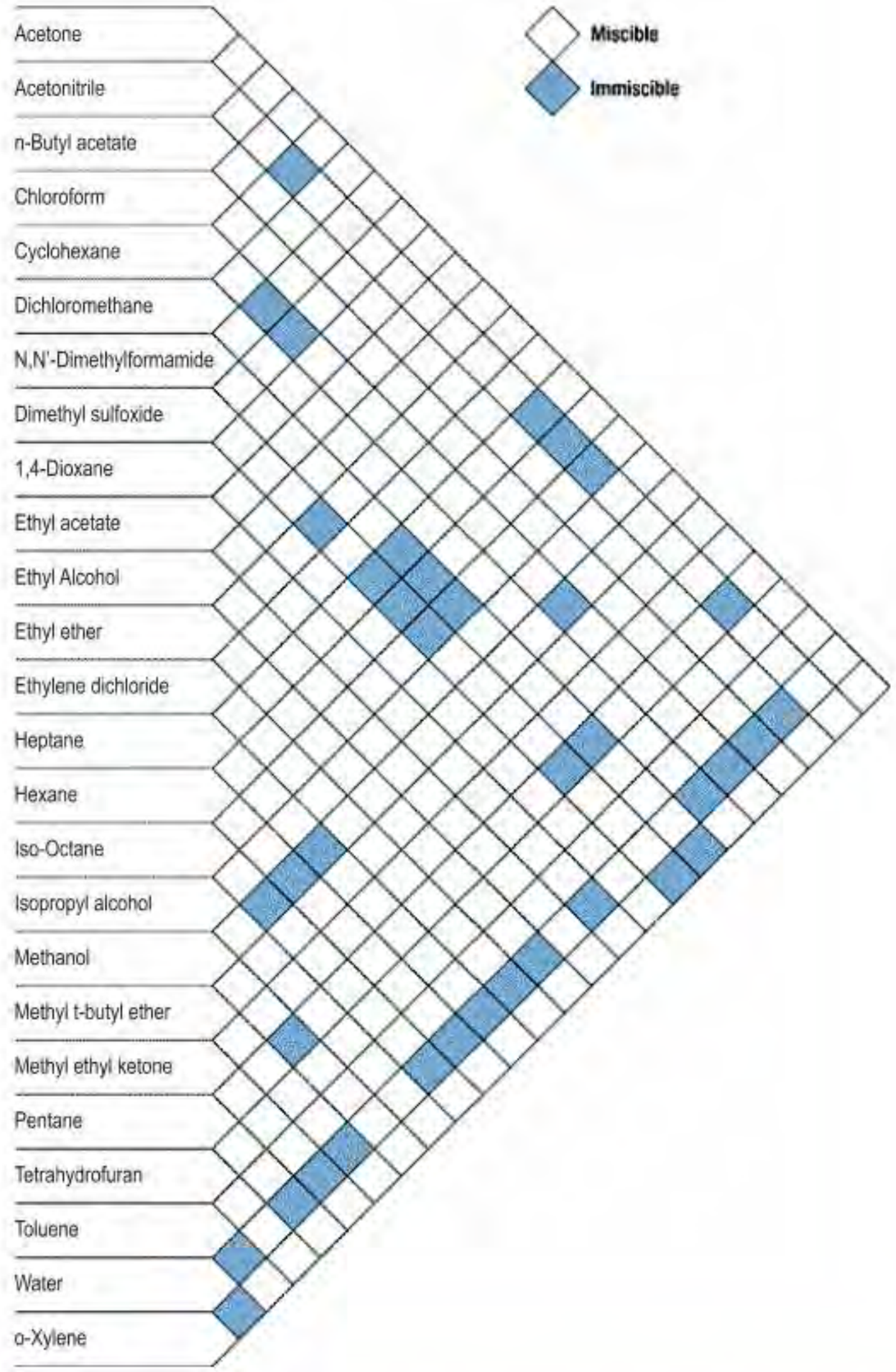
GHS Información suplementaria sobre los peligros (ES)

EUH001	Explosivo en estado seco.
EUH006	Explosivo en contacto o sin contacto con el aire.
EUH014	Reacciona violentamente con el agua.
EUH018	Al usarlo pueden formarse mezclas aire-vapor explosivas o inflamables.
EUH019	Puede formar peróxidos explosivos.
EUH029	En contacto con agua libera gases tóxicos.
EUH031	En contacto con ácidos libera gases tóxicos.
EUH032	En contacto con ácidos libera gases muy tóxicos.
EUH044	Riesgo de explosión al calentarlo en ambiente confinado.
EUH059	Peligroso para la capa de ozono.
EUH066	La exposición repetida puede provocar sequedad o formación de grietas en la piel.
EUH070	Tóxico en contacto con los ojos.
EUH071	Corrosivo para las vías respiratorias.
EUH201/201A	Contiene plomo. No utilizar en objetos que los niños puedan masticar o chupar. ¡Atención! Contiene plomo.
EUH202	Cianoacrilato. Peligro. Se adhiere a la piel y a los ojos en pocos segundos. Mantener fuera del alcance de los niños.
EUH203	Contiene cromo (VI). Puede provocar una reacción alérgica.
EUH204	Contiene isocianatos. Puede provocar una reacción alérgica.
EUH205	Contiene componentes epoxídicos. Puede provocar una reacción alérgica.
EUH206	¡Atención! No utilizar junto con otros productos. Puede desprender gases peligrosos (cloro).
EUH207	¡Atención! Contiene cadmio. Durante su utilización se desprenden vapores peligrosos. Ver la información facilitada por el fabricante. Seguir las instrucciones de seguridad.
EUH208	Contiene <nombre de la sustancia sensibilizante>. Puede provocar una reacción alérgica.
EUH209/209A	Puede inflamarse fácilmente al usarlo Puede inflamarse al usarlo.
EUH210	Puede solicitarse la ficha de datos de seguridad.
EUH401	A fin de evitar riesgos para las personas y el medio ambiente, siga las instrucciones de uso.

UV Cutoff & Miscibility of Some Solvents

Absorbance in a 1 cm path length cell using water as reference.

Solvent	UV Cutoff (nm)	Solvent	UV Cutoff (nm)
Acetone	330	Hexane	195
Acetonitrile	190	Methanol	205
n-Butyl acetate	254	2-Methoxyethanol	210
Iso-butyl alcohol	220	Methyl ethyl ketone	329
n-Butyl alcohol	215	Methyl isoamyl ketone	330
n-Butyl chloride	220	Methyl isobutyl ketone	334
Chlorobenzene	287	Methyl n-propyl ketone	331
Chloroform	245	Methyl t-butyl ether	210
Cyclohexane	200	N-Methyl pyrrolidone	285
Cyclopentane	198	Iso-Octane	215
o-Dichlorobenzene	295	Pentane	190
Dichloromethane	233	Iso-propyl alcohol	205
Dimethyl acetamide	268	n-Propyl alcohol	210
Dimethyl sulfoxide	268	Propylene carbonate	220
N,N'-Dimethylformamide	268	Tetrahydrofuran	212
1,4-Dioxane	215	Toluene	284
Ethyl acetate	256	1,2,4-Trichlorobenzene	308
Ethyl Alcohol	210	1,1,2-Trichlorotrifluoroethane	231
Ethyl ether	215	Trifluoroacetic acid	210
Ethylene dichloride	228	Water	190
Heptane	200	o-Xylene	288



TYPICAL WORKING RANGE

of some HPLC solvents

HPLC product	200nm	210nm	220nm	230nm	235nm	240nm	245nm	250nm	254nm	260nm	270nm	280nm	300nm	400nm
Acetic acid									32	80	93	94	95	100
Acetone									18(330)	60(335)	87(340)	96(345)	99(350)	100
Acetonitrile Isocratic	93	94	97	98	98	99	99	99	100					
Acetonitrile Gradient	96	97	98	99	99	99	99	99	100					
Acetonitrile Supra-gradient	97	98	99	99	99	99	99	99	100					
n -Butanol		27	63	82	87	90	92	93	94	96	98	98	98	99
tert -Butyl methyl ether		14	27	40	50	61	70	78	84	90	96	100		
Chloroform							16	52	76	92	99	100		
Cyclohexane	8	20	60	84	90	94	95	96	97	98	99	99	100	
1,2-Dichloroethane				48	78	92	96	98	99	98	98	100		
Dichloromethane				10	45	78	92	93	98	100				
Diethyl ether			15	72	78	83	86	90	93	95	98	99	99	100
Diisopropyl ether		34	50	60	67	73	78	94	88	92	96	98	99	100
Dimethyl formamide											30	82	94	100
1,4-Dioxane			21	32	42	54	62	70	74	79	88	93	99	100
Ethanol absolute		40	62	77	84	89	92	95	96	98	98	99	99	100

Ethyl acetate									12	75	98	99	100	
n-Heptane	32	59	84	93	96	97	98	99	99	99	99	99	100	
Hexafluoroisopropanol	98	98	98	98	98	98	98	98	99	99	99	99	99	99
n-Hexane	35	66	88	95	97	98	98	99	99	99	100			
Iso-Hexane	39	71	88	95	96	97	98	99	99	99	99	100		
Iso-Octane	21	47	80	93	95	97	98	98	99	99	99	99	100	
Methanol		42	68	89	89	92	95	97	98	98	99	100	100	
N-Methyl pyrrolidone										4	63	77	89	100
n-Pentane	60	42	90	96	96	98	98	99	99	99	99	100		
Petroleum ether 40-60°	10	52	88	94	96	97	98	89	98	98	98	99	100	
1-Propanol		18	32	60	80	87	94	97	98	98	99	99	100	
2-Propanol		49	76	87	90	94	96	97	99	99	100			
Tetrahydrofurane		5	27	40	49	56	62	68	73	80	90	95	98	100
Toluene													89	100
Trichlorotrifluoroethane-1,1,2					24	60	84	94	97	98	100			
Triethylamine (0.1M in water)							13	46	75	90	97	98	99	100
Trifluoroacetic acid										15	80	94	96	99
Trifluoroethanol-2,2,2	87	93	95	97	97	97	97	97	97	97	97	97	98	99
Water		Abs. max. $5x10^{-3}$AU							Abs. max. $1x10^{-3}$AU					

less than 2% UV Transmittance

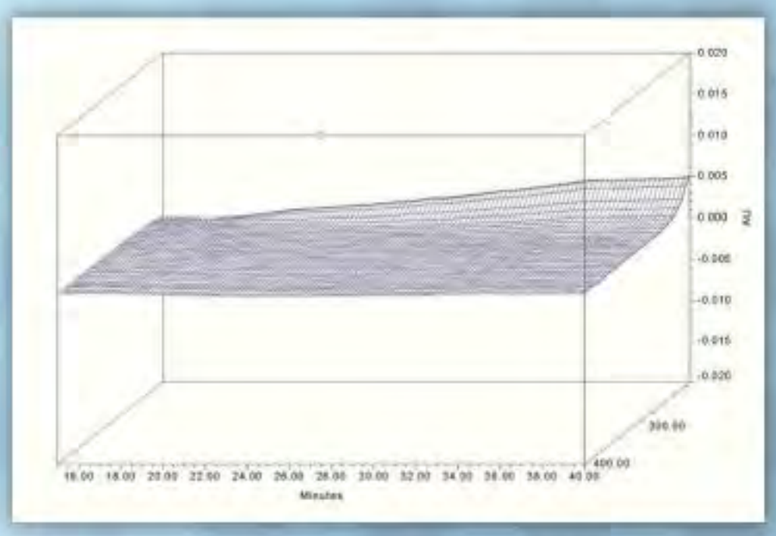
ULC/MS – CC/SFC SOLVENTS

Biosolve early recognized the importance of high purity solvents, formulations and reagents for sophisticated LC and LC-MS applications and began offering a decade ago the ULC/MS grade which is the finest grade available anywhere in the world for UHPLC/ MS applications. Biosolve Ultra Liquid Chromatography / Mass Spectrometry (ULC/MS) solvents for high resolution and sensitivity checked and guaranteed to meet the demand for high chemical purity, high UV transmission and lowest peak impurities in the MS and PDA gradient elution tests to ensure reproducibility.

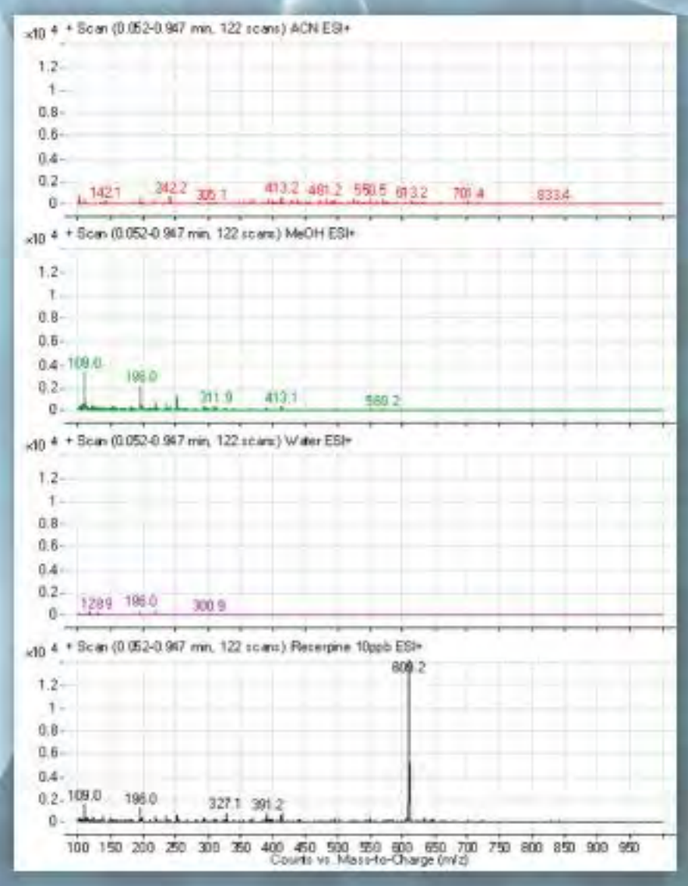
Latest innovations in convergence chromatography (CC), the supercritical fluid chromatography (SFC) led us testing our ULC/MS grade products also for CC/SFC application. Supported by significant investment in R&D, the results show that the ULC/MS grade products have the highest chemical purity, superior performance for MS applications, excellent UV transmission and the lowest peak impurities under gradient conditions including with CC/SFC application. As a result, and for the convenience of our customers we have added the term CC/SFC to our finest ULC/MS grade products, which are now called ULC/MS-CC/SFC.

Biosolve investment in this research demonstrates our commitment to constantly improving our products and our abilities to meet your new requirements by remaining a leader manufacturer in our field.

All ULC/MS-CC/SFC solvents are filtered at 0.1µm and packed under inert gas for better shelf life. Standard packages are available in 1L, 2.5L, PTFE lined amber bottles and for some solvents stainless steel containers are available that can be equipped with dip pipe delivery devices from 25L to 1500L volume.



PDA gradient between 200-400 nm of Acetonitrile : Water ULC/MS grade. Loading for 15 min. gradient 10-100% Acetonitrile in 20 min., hold 5 min. Column RP18, 3.5um; flow 1 ml/min



Comparison between the positive ESI spectra of Acetonitrile, MeOH & Water ULC/MS grade versus Reserpine 10ppb at 100-1000 m/z

SOLVENTS FOR TRACE ORGANIC ANALYSIS

With the development of advanced analytical techniques, trace analysis have been a major challenge for analytical chemists. Analytical chemistry involves the separation, identification, and quantization of target compounds in complex samples. Modern chromatographic techniques have an excellent separation power; they are versatile and allow the use of a variety of detection techniques.

However, sample enrichment by extraction-concentration technique is frequently required before introducing samples into the chromatographic systems. As a result, high purity solvents using the extraction-concentration technique for the analysis of residues and general trace organic contaminants in water, soil, food and pharmaceutical synthesis are needed.

We are constantly striving to tight up our specifications and presently offer several grades depending of the solvent and its intended use.

Large Volume GC Solvents - LV/GC

This solvents range is suitable for ultimate organic trace analysis; checked for ppb levels of Poly-Aromatic Hydrocarbons (PAH's), Furans, PCB's, Pesticides, Oil-Index in the range of C10 to C40, and for other residual organic contaminants. Each batch is fully analyzed after 1000:1 concentration with HPLC-PDA, GC-FID, GC-ECD, GC-MS etc.

All solvents are filtered through 0.2µm and packed under inert gas for better shelf-life.

Dioxins, Pesti-S, Furans and PCB`s

Our classical solvents for environmental analysis, ECD tested after 1000:1 concentration, suitable for the analysis of common Pesticides in the range of α-BHC to 2,4'-DDT, for the analysis of Poly-Chlorinated Biphenyls (PCBs) from 2-PCB to Deca-PCB range including all TCDD isomers (Mainly 2,3,7,8-TCDD), Furans and Dioxins.

Each batch is fully tested against internal standard of <5ppb Lindane.

HEADSPACE GRADE SOLVENTS

For Analysis Of Organic Volatile Impurities

Organic Volatile Impurities (OVI's) in pharmaceuticals, commonly referred as residual solvents, are trace organic volatile chemicals used or produced in the manufacturing of active substances, excipients, or in the preparation of medicinal products.

The International Conference on Harmonization (ICH) Q3C, United States Pharmacopoeia (USP) <467> and the European Pharmacopoeia (EP) 2.4.24, have set guidelines to identify residual solvents in pharmaceuticals and ensure that these solvents are not above the concentration limits according to the risk they pose for human health.

Revised procedures for the identification and quantification of OVI's consist of a static Headspace extraction coupled with a Gas Chromatographic (GC) separation. This technique is a precise and well-accepted method for the analysis of residual solvents.

We offer a range of high boiling point solvents, such as Dimethylacetamide (DMA), Dimethylformamide (DMF), Dimethylimidazolidinone (DMI), Dimethylsulfoxide (DMSO) and N-Methyl-2-pyrrolidone (NMP), specially developed and packed for Headspace analysis of volatile solvent impurities.
The purity of our Headspace grade solvents specifically evaluated by analysis against standards to ensure the absence of interfering peaks in the GC chromatogram.

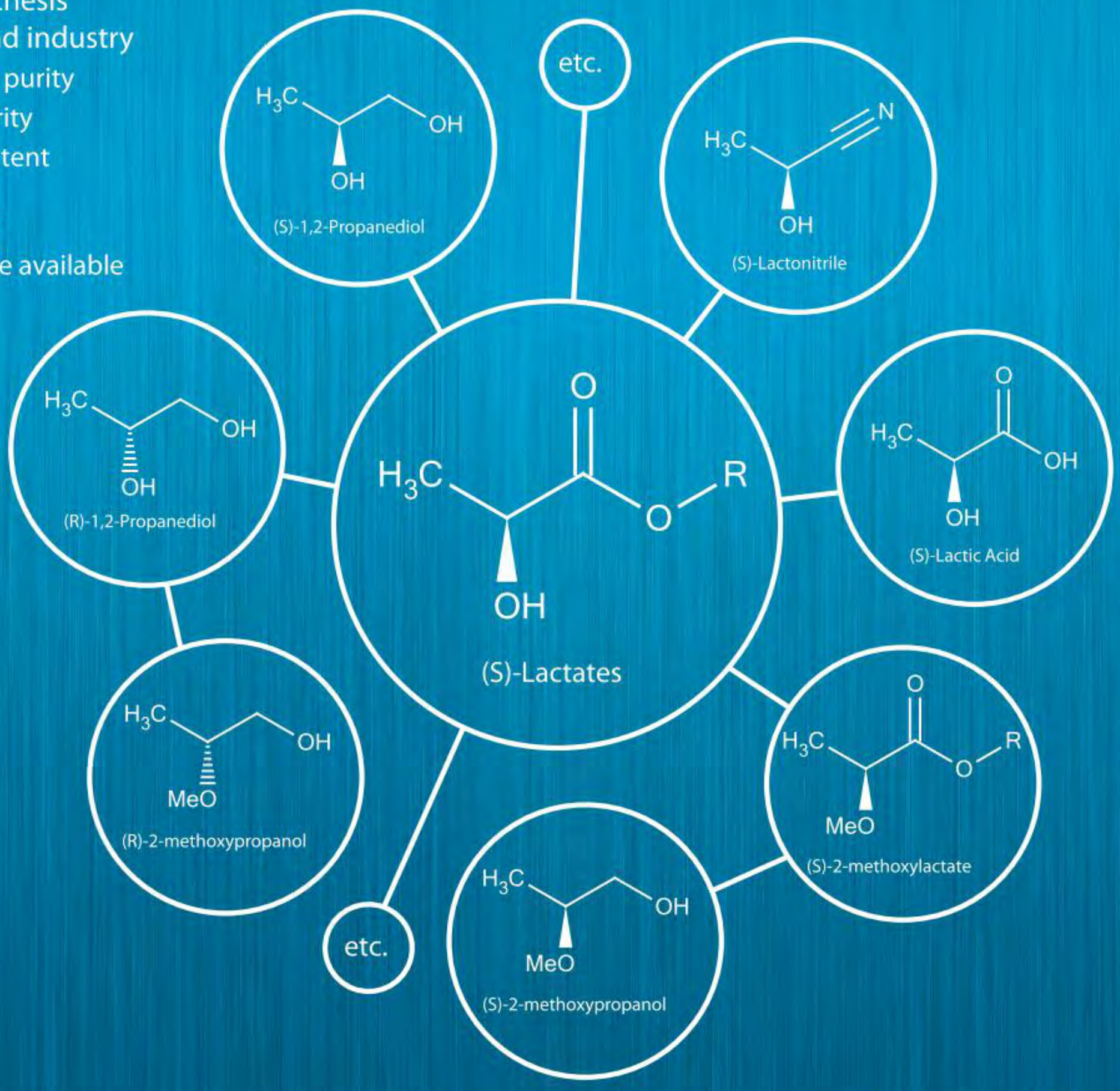
www.biosolve-chemicals.com

CUSTOM SYNTHESIS

Small chiral building blocks in assymetric molecular architecture

- For organic synthesis at laborat ory and industry
  - > High chemical purity
  - > High chiral purity
  - > Low water content

- For pharma use
  - > Impurity profile available



Biosolve

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PLEASE APPLY HERE !

Inorganic calibration standards

Biosolve offers a comprehensive range of single and multi-element standards for Atomic Spectrometry, Graphite Furnace, ICP-Mass Spectrometry (ICP-MS), ICP-OES and Ion Chromatography. Please contact us for further details and standard mixtures.

Catalogue No.	Product Description	Catalogue. No	Product Description
4303	ICP Calibration Standard (IV) in 2% HNO_3	6050	Nickel Ni - 1.000 +/- 0.002 g/l in diluted HNO_3
6000	Silver Ag - 1.000 +/- 0.002 g/l in diluted HNO_3	6051	Osmium Os - 1.000 +/- 0.002 g/l in diluted HCl
6001	Aluminium Al - 1.000 +/- 0.002 g/l in diluted HNO_3	6052	Phosphorus P - 1.000 +/- 0.002 g/l in H_2O
6002	Aluminium Al - 1.000 +/- 0.002 g/l in diluted HCl	6053	Phosphorus P -1.000 +/- 0.002 g/l in diluted H_2SO_4
6003	Arsenic As - 1.000 +/- 0.002 g/l in diluted HNO_3	6054	Lead Pb - 1.000 +/- 0.002 g/l in diluted HNO_3
6004	Gold Au - 1.000 +/- 0.002 g/l in diluted HCl	6055	Palladium Pd - 1.000 +/- 0.002 g/l in diluted HCl
6005	Boron B - 1.000 +/- 0.002 g/l in H_2O	6066	Palladium Pd - 1.000 +/- 0.002 g/l in diluted HNO_3
6006	Barium Ba - 1.000 +/- 0.002 g/l in diluted HCl	6067	Praseodymium Pr - 1.000 +/- 0.002 g/l in diluted HNO_3
6007	Barium Ba - 1.000 +/- 0.002 g/l in diluted HNO_3	6068	Platinum Pt - 1.000 +/- 0.002 g/l in diluted HCl
6008	Beryllium Be - 1.000 +/- 0.002 g/l in diluted HCl	6069	Rubidium Rb - 1.000 +/- 0.002 g/l in diluted HNO_3
6009	Beryllium Be - 1.000 +/- 0.002 g/l in diluted HNO_3/HF	6070	Rubidium Rb - 1.000 +/- 0.002 g/l in H_2O
6010	Bismuth Bi - 1.000 +/- 0.002 g/l in diluted HNO_3	6071	Rhenium Re - 1.000 +/- 0.002 g/l in diluted HNO_3
6011	Calcium Ca - 1.000 +/- 0.002 g/l in diluted HNO_3	6072	Rhenium Re - 1.000 +/- 0.002 g/l in H_2O
6012	Calcium Ca - 1.000 +/- 0.002 g/l in diluted HCl	6073	Rhodium Rh - 1.000 +/- 0.002 g/l in diluted HCl
6013	Cadmium Cd - 1.000 +/- 0.002 g/l in diluted HNO_3	6074	Ruthenium Ru - 1.000 +/- 0.002 g/l in diluted HCl
6014	Cerium Ce - 1.000 +/- 0.002 g/l in diluted HNO_3	6075	Sulphur S - 1.000 +/- 0.002 g/l in H_2O
6015	Cobalt Co - 1.000 +/- 0.002 g/l in diluted HNO_3	6076	Antimony Sb - 1.000 +/- 0.002 g/l in diluted HNO_3/HF
6016	Chromium Cr -1.000 +/- 0.002 g/l in diluted HNO_3	6077	Antimony Sb - 1.000 +/- 0.002 g/l in diluted HCl
6017	Chromium Cr - 1.000 +/- 0.002 g/l in diluted HCl	6078	Scandium Sc - 1.000 +/- 0.002 g/l in diluted HNO_3
6018	Cesium Cs - 1.000 +/- 0.002 g/l in diluted HNO_3	6079	Selenium Se - 1.000 +/- 0.002 g/l in diluted HNO_3
6019	Cesium Cs - 1.000 +/- 0.002 g/l in H_2O	6080	Silicon Si - 1.000 +/- 0.002 g/l in H_2O
6020	Copper Cu - 1.000 +/- 0.002 g/l in diluted HNO_3	6081	Samarium Sm - 1.000 +/- 0.002 g/l in diluted HNO_3
6021	Dysprosium Dy - 1.000 +/- 0.002 g/l in diluted HNO_3	6082	Tin Sn - 1.000 +/- 0.002 g/l in diluted HNO_3/HF
6022	Erbium Er - 1.000 +/- 0.002 g/l in diluted HNO_3	6083	Tin Sn - 1.000 +/- 0.002 g/l in diluted HCl
6023	Europium Eu - 1.000 +/- 0.002 g/l in diluted HNO_3	6084	Strontium Sr - 1.000 +/- 0.002 g/l in diluted HNO_3
6024	Iron Fe - 1.000 +/- 0.002 g/l in diluted HNO_3	6085	Strontium Sr - 1.000 +/- 0.002 g/l in diluted HCl
6025	Iron Fe - 1.000 +/- 0.002 g/l in dilute d HCl	6086	Tantalum Ta - 1.000 +/- 0.002 g/l in diluted HNO_3/HF
6026	Gallium Ga - 1.000 +/- 0.002 g/l in diluted HNO_3	6087	Terbium Tb - 1.000 +/- 0.002 g/l in diluted HNO_3
6027	Gadolinium Gd - 1.000 +/- 0.002 g/l in diluted HNO_3	6088	Tellurum Te - 1.000 +/- 0.002 g/l in diluted HCl
6028	Germanium Ge - 1.000 +/- 0.002 g/l in diluted HNO_3/HF	6089	Tellurum Te - 1.000 +/- 0.002 g/l in diluted HNO_3
6029	Hafnium Hf - 1.000 +/- 0.002 g/l in diluted HNO3/HF	6090	Thorium Th - 1.000 +/- 0.002 g/l in diluted HNO_3 HNO_3
6030	Hafnium Hf - 1.000 +/- 0.002 g/l in diluted HCl/HF	6091	Titanium Ti - 1.000 +/- 0.002 g/l in diluted HNO_3/HF
6031	Mercury Hg - 1.000 +/- 0.002 g/l in diluted HNO_3	6092	Titanium Ti - 1.000 +/- 0.002 g/l in diluted HCl/HF
6032	Holmium Ho - 1.000 +/- 0.002 g/l in diluted HNO_3	6093	Thallium Tl - 1.000 +/- 0.002 g/l in diluted HNO_3
6033	Indium In - 1.000 +/- 0.002 g/l in diluted HNO_3	6094	Thulium Tm - 1.000 +/- 0.002 g/l in diluted HNO_3
6034	Iridium Ir - 1.000 +/- 0.002 g/l in diluted HCl	6095	Uranium U - 1.000 +/- 0.002 g/l in diluted HNO_3
6035	Potassium K - 1.000 +/- 0.002 g/l in diluted HNO_3	6096	Vanadium V - 1.000 +/- 0.002 g/l in diluted HNO_3
6036	Potassium K - 1.000 +/- 0.002 g/l in H_2O	6097	Vanadium V - 1.000 +/- 0.002 g/l in diluted H_2SO_4
6037	Lanthanum La - 1.000 +/- 0.002 g/l in diluted HNO_3	6098	Tungsten W - 1.000 +/- 0.002 g/l in diluted HNO_3/HF
6038	Lithium Li - 1.000 +/- 0.002 g/l in diluted HNO_3	6099	Tungsten W - 1.000 +/- 0.002 g/l in NH3
6039	Lithium Li - 1.000 +/- 0.002 g/l in diluted HCl	6100	Yttrium Y - 1.000 +/- 0.002 g/l in diluted HNO_3
6040	Lutetium Lu - 1.000 +/- 0.002 g/l in diluted HNO_3	6101	Ytterbium Yb - 1.000 +/- 0.002 g/l in diluted HNO_3
6041	Magnesium Mg - 1.000 +/- 0.002 g/l in diluted HNO_3	6102	Zinc Zn - 1.000 +/- 0.002 g/l in diluted HNO_3
6042	Manganese Mn -1.000 +/- 0.002 g/l in diluted HNO_3	6103	Zinc Zn - 1.000 +/- 0.002 g/l in diluted HCl
6043	Manganese Mn - 1.000 +/- 0.002 g/l in diluted HCl	6104	Zirconium Zr - 1.000 +/- 0.002 g/l in diluted HNO_3/HF
6044	Molybdenum Mo - 1.000 +/- 0.002 g/l in diluted NH3	6105	Zirconium Zr - 1.000 +/- 0.002 g/l in diluted HCl/HF
6045	Molybdenum Mo - 1.000 +/- 0.002 g/l in diluted HNO_3/HF	6106	Solution Oxalate 50µg/ml in Water
6046	Sodium Na - 1.000 +/- 0.002 g/l in diluted HNO_3	6107	Solution 9 Cations mono in Water
6047	Sodium Na - 1.000 +/- 0.002 g/l in H_2O	6108	Solution 7 Anions in Water
6048	Niobium Nb - 1.000 +/- 0.002 g/l in diluted HNO_3/HF	6109	Solution 4 Anions in Water
6049	Neodimium Nd - 1.000 +/- 0.002 g/l in diluted HNO_3	6110	Solution 2 Anions in Water

Reference Standards for Gas Chromatography

Residual solvents, commonly referred to volatile impurities, are trace organic solvents that may be found after the production process of many products used in our daily life, such as, active substances and excipients in pharmaceutical medications, cosmetic ingredients and various food products. Their identification and quantification are therefore an essential part of the content specifications and safety of such products.
A common technique for the chemical analyses of residual solvents relates to Gas Chromatography (GC) for which highly pure GC standards are needed.

Biosolve offers a broad range of highly pure GC reference standards for various GC applications. The majority of our GC reference standards are completely synthetic and typically over 99.9% pure. The purity and the specific impurity profile of each standard is determined by GC-FID and GC-MS and reported in the certificate of analysis of each manufactured lot. Assay is determined against traceable, certified international standards.

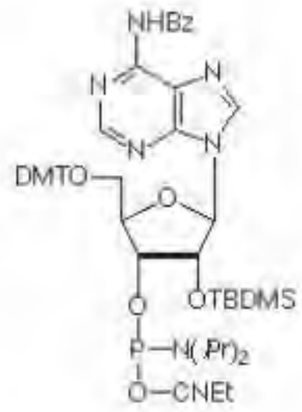
Partial list of available GC reference standards:

Product	Cat. No.
Acetic acid	010772
Acetone	010372
Acetonitrile	012072
Ethanol	052572
n-Hexane 99%+	080972
Methanol	136872
2-Propanol	162672
Tetrahydrofuran	202272
Toluene	201572

Biosolve GC reference standards are commonly bottled in 10ml and 100ml packages.
For more reference standards or packages, please contact us at: info@biosolve-chemicals.com

A(Bz)-OTBDMS-CE Phosphoramidite

$C_{53}H_{66}N_7O_8PSi$; M 988.21;



Cat. No. 162124

A(Bz)-OTBDMS-CE Phosphoramidite

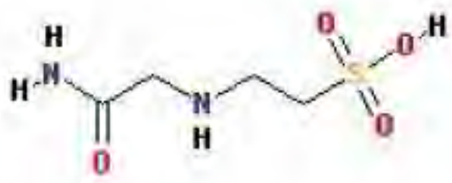
DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

Aces free acid

Synonym: *N-(2-Acetamido)-2-aminoethanesulfonic acid, N-(Carbamoylmethyl)-2-aminoethanesulfonic acid, N-(Carbamoylmethyl)taurine*

CAS [7365-82-4]; EC 230-908-4; $C_4H_{10}N_2O_4S$; M 182.19



Cat. No. 010223

Aces free acid

Molecular biology

Application: ACES is a buffering substance useful at pH range 6.1 - 7.5. pKa = 6.78 at 25°C. Commonly used as an elution buffer in the chromatographic purification of proteins.

Solubility (2% in Water)	**Clear colorless solution**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	RNase activity	**Not detected**
Assay (T)	**min. 99%w/w**	Protease activity	**Not detected**
A260nm (2%)	**max. 0.05AU**		

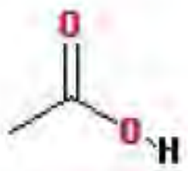
Acetic acid glacial

Synonym: *Glacial acetic acid*

CAS [64-19-7]; EC 200-580-7; $C_2H_4O_2$; M 60.04

D 1.048; m.p. 16.5 °C; b.p. 117-118 °C; UN 2789,8+3,II,CF1

Danger H:226-314; P:210-303+361+353-305+351+338-310-405-501



Cat. No. 010741

Acetic acid glacial

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	Grad. elution drift at 254nm	**max. 0.005AU**
Assay (GC, on anhydrous basis)	**min. 99.95%**	F254nm (0.1%, as Quinine)	**max. 0.5ppb**
Residue after evaporation	**max. 0.0005%w/w**	F365nm (0.1%, as Quinine)	**max. 0.5ppb**
Water (KF)	**max. 0.05%w/w**	Al (Aluminum)	**max. 10ppb**
Subs. reducing Dichromate	**Passes test**	Ca (Calcium)	**max. 50ppb**
Subs. reducing $KMnO_4$	**Passes test**	Fe (Iron)	**max. 20ppb**
T254nm	**min. 30%**	K (Potassium)	**max. 20ppb**
T260nm	**min. 80%**	Mg (Magnesium)	**max. 10ppb**
T265nm	**min. 95%**	Na (Sodium)	**max. 50ppb**
T275nm	**min. 98%**	Pb (lead)	**max. 20ppb**
MS-ESI+ (0.1%, as Reserpine)	**max. 25ppb**		
Grad. elution H.Peak at 254nm	**max. 0.002AU**		

Filtered through 0.1µm, filled under inert gas.

Cat. No. 010778

Acetic acid glacial

LC-MS

Appearance	**Clear colorless liquid**	Grad. elution drift at 254nm	**max. 0.010AU**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Ca (Calcium)	**max. 0.05ppm**
Residue after evaporation	**max. 0.0005%w/w**	K (Potassium)	**max. 0.05ppm**
Water (KF)	**max. 0.05%w/w**	Mg (Magnesium)	**max. 0.05ppm**
T255nm	**min. 30%**	Na (Sodium)	**max. 0.05ppm**
T265nm	**min. 90%**	Fe (Iron)	**max. 0.02ppm**
T275nm	**min. 95%**	Pb (Lead)	**max. 0.02ppm**
Grad. elution H.Peak at 254nm	**max. 0.005AU**	LC-MS suitability test	**Complies**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 010706

Acetic acid glacial

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.1%w/w**
Color (APHA)	**max. 10**	T254nm	**min. 25%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T260nm	**min. 80%**
Residue after evaporation	**max. 0.001%w/w**		

Filtered through 0.4µm, filled under inert gas.

Cat. No. 010705

Acetic acid glacial

AR

Appearance	**Clear colorless liquid**	Acetic anhydride	**max. 0.01%**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.2%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Alkalinity	**max. 0.0004meq/gr**
Dilution test	**Passes ACS test**	Chloride (Cl)	**max. 0.0001%**
Residue after evaporation	**max. 0.001%w/w**	Iron (Fe)	**max. 0.00002%**
Subs. reducing Dichromate	**Passes ACS test**	Heavy metals (as Pb)	**max. 0.00005%**
Subs. reducing $KMnO_4$	**Passes ACS test**	Sulfate (SO_4)	**max. 0.0001%**

Cat. No. 010751

Acetic acid glacial

AR-S glass distilled

Appearance	**Clear colorless liquid**	B (Boron)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Ba (Barium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Ca (Calcium)	**max. 0.5ppm**
Acetic anhydride	**max. 0.01%**	Cd (Cadmium)	**max. 0.05ppm**
Alkalinity	**max. 0.0004meq/gr**	Co (Cobalt)	**max. 0.02ppm**
Dilution test	**Passes test**	Cr (Chromium)	**max. 0.02ppm**
Residue after evaporation	**max. 0.001%w/w**	Cu (Copper)	**max. 0.02ppm**
Subs. reducing Dichromate	**Passes test**	Fe (Iron)	**max. 0.1ppm**
Subs. reducing $KMnO_4$	**Passes test**	Mg (Magnesium)	**max. 0.1ppm**
Water (KF)	**max. 0.2%w/w**	Mn (Manganese)	**max. 0.02ppm**
Chloride (Cl)	**max. 0.0001%**	Ni (Nickel)	**max. 0.02ppm**
Heavy metals (as Pb)	**max. 0.00005%**	Pb (Lead)	**max. 0.1ppm**
Iron (Fe)	**max. 0.00002%**	Sn (Tin)	**max. 0.1ppm**
Sulfate (SO_4)	**max. 0.0001%**	Zn (Zinc)	**max. 0.1ppm**
Al (Aluminum)	**max. 0.5ppm**		

Cat. No. 010764

Acetic acid glacial

Meets ACS/EP/BP/USP spec.

Appearance	**Clear colourles liquid**	Oxidisable substances	**Passes USP test**
Identification	**Passes USP test**	Alkalinity	**max. 0.0004meq/gr**
Identification A	**Passes EP/BP test**	Chloride (Cl)	**max. 0.0001%**
Identification B	**Passes EP/BP test**	Chloride (Cl)	**Passes USP test**
Assay (T)	**99.5-100.5%w/w**	Heavy metals (as Pb)	**max. 0.00005%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Iron (Fe)	**max. 0.00002%**
Color (APHA)	**max. 10**	Sulfate (SO_4)	**max. 0.0001%**
Dilution test	**Passes ACS test**	Sulfate (SO_4)	**Passes USP test**
Soldification point	**15.6-17.0°C**	Water (KF)	**max. 0.2%w/w**
Subs. reducing Dichromate	**Passes ACS test**	Acetic anhydride	**max. 0.01%**
Subs. reducing $KMnO_4$	**Passes ACS test**	Residue after evaporation	**max. 0.001%w/w**
Reducing substances (0.1M Na2S2O3)	**1.0-10.0ml**		

Cat. No. 010703

Acetic acid glacial

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Iron (Fe)	**max. 0.0005%**
Identification B	**Passes EP/BP test**	Sulfate (SO_4)	**max. 0.005%**
Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.01%w/w**
Assay (T)	**99.0-100.5%w/w**	Soldification point	**14.8-17.0°C**
Chloride (Cl)	**max. 0.0025%**	Reducing substances (0.1M $Na_2S_2O_3$)	**1.0-10.0ml**
Heavy metals (as Pb)	**max. 0.0005%**	Appearance of solution	**Sol. 20% is clear and colorless**

Cat. No. 010736

Acetic acid glacial

Meets USP spec.

Appearance	**Clear colorless liquid**	Sulfate (SO_4) Soldification	**Passes USP test**
Identification	**Passes USP test**	point Oxidisable	**15.6-17.0°C**
Assay (T)	**99.5-100.5%w/w**	substances Residue after	**Passes USP test**
Chloride (Cl)	**Passes USP test**	evaporation	**max. 0.005%w/w**
Heavy metals (as Pb)	**max. 0.0005%**	Residual solvents	**Meets the requirements**
Iron (Fe)	**max. 0.0005%**		

Cat. No. 010702

Acetic acid glacial

CP

Appearance	**Clear colorless liquid**
Assay (GC, on anhydrous basis)	**min. 99%**
Residue after evaporation	**max. 0.01%w/w**
Water (KF)	**max. 0.5%w/w**

Acetic acid 0.1% in Acetonitrile

D 0.78; UN 1993,3,II,F1;

Danger H:225-312-319-332; P:210-241-261-303+361+353-305+351+338

Cat. No. 019141

Acetic acid 0.1% in Acetonitrile

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	T230nm	**min. 50%**
Assay (T)	**0.095-0.105%v/v**	T254nm	**min. 98%**
Water (KF)	**max. 0.02%w/w**	Al (Aluminum)	**max. 30ppb**
Residue after evaporation	**max. 0.0001%w/w**	Ca (Calcium)	**max. 100ppb**
MS-ESI+ (as Reserpine)	**max. 25ppb**	Fe (Iron)	**max. 50ppb**
Grad. elution H.Peak at 254nm	**max. 0.002AU**	K (Potassium)	**max. 100ppb**
Grad. elution drift at 254nm	**max. 0.010AU**	Mg (Magnesium)	**max. 30ppb**
F254nm (as Quinine)	**max. 0.5ppb**	Na (Sodium)	**max. 100ppb**
F365nm (as Quinine)	**max. 0.5ppb**		
T210nm	**min. 20%**		

Filtered through 0.1µm, filled under inert gas.

Cat. No. 019106

Acetic acid 0.1% in Acetonitrile

HPLC

Appearance	**Clear colorless liquid**	T235nm	**min. 65%**
Water (KF)	**max. 0.02%w/w**	T245nm	**min. 90%**
Assay (T)	**0.095-0.105%v/v**	T254nm	**min. 97%**
T215nm	**min. 20%**		

Filtered through 0.2µm, filled under inert gas.

Acetic Acid 0.1% in Water

D 1.0;

Cat. No. 232341

Acetic Acid 0.1% in Water

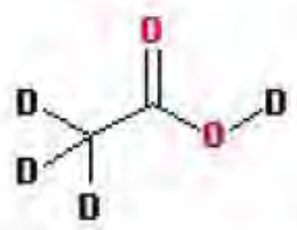
ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	T230nm	**min. 75%**
Assay (T)	**0.095-0.105%v/v**	T254nm	**min. 99%**
Residue after evaporation	**max. 0.0001%w/w**	Al (Aluminum)	**max. 30ppb**
MS-ESI+ (as Reserpine)	**max. 25ppb**	Ca (Calcium)	**max. 100ppb**
Grad. elution H.Peak at 254nm	**max. 0.002AU**	Fe (Iron)	**max. 50ppb**
Grad. elution drift at 254nm	**max. 0.010AU**	K (Potassium)	**max. 100ppb**
F254nm (as Quinine)	**max. 0.5ppb**	Mg (Magnesium)	**max. 30ppb**
F365nm (as Quinine)	**max. 0.5ppb**	Na (Sodium)	**max. 100ppb**
T210nm	**min. 20%**		

Filtered through 0.1µm, filled under inert gas.

Acetic-d3 acid-d, 99.5 atom%D

CAS [1186-52-3]; EC 214-693-4; $D_4C_2O_2$; M 64.07



Danger H:226-314; P:210-303+361+353-305+351+338-310-405-501

Specification continues on the next page

Cat. No. 319595 ***Acetic-d3 acid-d, 99.5 atom%D***

For NMR

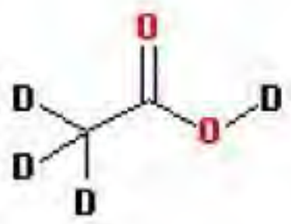
Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.05% H_2O+D_2O**

Acetic-d3 acid-d, 99 atom%D

CAS [1186-52-3]; EC 214-693-4; $D_4C_2O_2$; M 64.07

D 1.13; m.p. 15-16 °C; b.p. 115.5 °C; UN 2789,8+3,II,CF1

Danger H:226-314; P:210-303+361+353-305+351+338-310-405-501



Cat. No. 319495 ***Acetic-d3 acid-d, 99 atom%D***

For NMR

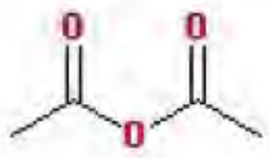
Enrichment (NMR)	**min. 99Atom%D**
Water (KF)	**max. 0.1% H_2O+D_2O**

Acetic anhydride

CAS [108-24-7]; EC 203-564-8; $C_4H_6O_3$; M 102.09

D 1.08; m.p. -73.1 °C; b.p. 140 °C; UN 1715,8+3,II,CF1

Danger H:226-302-314-332; P:210-303+361+353-305+351+338-310-405-501



Cat. No. 010105 ***Acetic anhydride***

AR

Appearance	**Clear colorless liquid**	Sulfate (SO_4)	**max. 0.0005%**
Color (APHA)	**max. 10**	Heavy metals (as Pb)	**max. 0.0002%**
Assay (GC, on anhydrous basis)	**min. 99%**	Phosphate (PO_4) Residue	**max. 0.001%**
Chloride (Cl)	**max. 0.0005%**	after evaporation Subs.	**max. 0.003%w/w**
Iron (Fe)	**max. 0.0005%**	reducing $KMnO_4$	**Passes test**

Cat. No. 010102 ***Acetic anhydride***

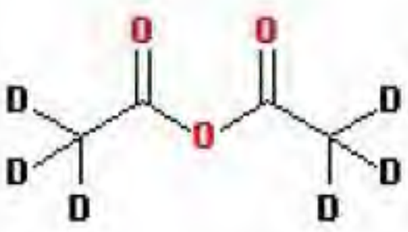
CP

Appearance	**Clear colorless liquid**
Assay (GC, on anhydrous basis)	**min. 97%**
Residue after evaporation	**max. 0.005%w/w**

Acetic anhydride-d6, 99.5 atom%D

CAS [16649-49-3]; EC 240-697-0; $D_6C_4O_3$; M 108.12

Danger H:226-302-314-332; P:210-303+361+353-305+351+338-310-405-501



Cat. No. 319695 ***Acetic anhydride-d6, 99.5 atom%D***

For NMR

Enrichment (NMR)	**min. 99.5Atom%D**

Acetone

Synonym: *Methyl methyl keton*

CAS [67-64-1]; EC 200-662-2; C_3H_6O; M 58.08

D 0.790; m.p. -95 °C; b.p. 56 °C; UN 1090,3,II,F1

Danger H:225-319-336; EUH:066; P:210-241-303+361+353-305+351+338-405-501

Cat. No. 010378

Acetone

LC-MS

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Color (APHA)	**max. 10**	Co (Cobalt)	**max. 0.05ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Cr (Chromium)	**max. 0.02ppm**
Acidity	**max. 0.0002meq/gr**	Cu (Copper)	**max. 0.02ppm**
Alkalinity	**max. 0.0002meq/gr**	Fe (Iron)	**max. 0.02ppm**
Residue after evaporation	**max. 0.0001%w/w**	K (Potassium)	**max. 0.05ppm**
Water (KF)	**max. 0.2%w/w**	Li (Lithium)	**max. 0.1ppm**
Grad. elution H.Peak at 345nm	**max. 0.0005AU**	Mg (Magnesium)	**max. 0.05ppm**
LC-MS suitability test	**Complies**	Mn (Manganese)	**max. 0.02ppm**
T339nm	**min. 80%**	Mo (Molybdenum)	**max. 0.05ppm**
T342nm	**min. 90%**	Na (Sodium)	**max. 0.05ppm**
T350nm	**min. 98%**	Ni (Nickel)	**max. 0.02ppm**
Ag (Silver)	**max. 0.1ppm**	Pb (Lead)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.05ppm**	Sn (Tin)	**max. 0.05ppm**
Ba (Barium)	**max. 0.1ppm**	Sr (Strontium)	**max. 0.05ppm**
Bi (Bismuth)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.05ppm**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 010306

Acetone

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.2%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T335nm	**min. 60%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T340nm	**min. 85%**
Residue after evaporation	**max. 0.0005%w/w**	T350nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 010338

Acetone

Spectrofluopure

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.2%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T335nm	**min. 60%**
F365nm (as Quinine)	**max. 1ppb**	T340nm	**min. 90%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T350nm	**min. 98%**
Residue after evaporation	**max. 0.0005%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 010384

Acetone

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Acidity (as Acetic acid)	**max. 0.002%**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Color (APHA)	**max. 10**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
F254nm (as Quinine)	**max. 1ppb**	Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
F365nm (as Quinine)	**max. 1ppb**	T335nm	**min. 60%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Residue after evaporation	**max. 0.0003%w/w**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	Water (KF)	**max. 0.3%w/w**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**		
PAH test (<2ppb by HPLC)	**Passes test**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 010360

Acetone

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.2%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Color (APHA)	**max. 10**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 99.9%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Residue after evaporation	**max. 0.0002%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 010326

Acetone

Pesti-S

Appearance	**Clear colorless liquid**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Acidity (as Acetic acid)	**max. 0.002%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.0002%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Water (KF)	**max. 0.2%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 010351

Acetone

AR-S glass distilled

Appearance	**Clear colorless liquid**	Ba (Barium)	**max. 0.1ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Ca (Calcium)	**max. 0.5ppm**
Alkalinity (as Ammonia)	**max. 0.001%**	Cd (Cadmium)	**max. 0.05ppm**
Color (APHA)	**max. 5**	Co (Cobalt)	**max. 0.02ppm**
Aldehydes	**max. 0.002%**	Cr (Chromium)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Cu (Copper)	**max. 0.02ppm**
2-Propanol	**max. 0.05%**	Fe (Iron)	**max. 0.1ppm**
Methanol	**max. 0.05%**	Mg (Magnesium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0002%w/w**	Mn (Manganese)	**max. 0.02ppm**
Subs. reducing $KMnO_4$	**Passes test**	Ni (Nickel)	**max. 0.02ppm**
Water (KF)	**max. 0.2%w/w**	Pb (Lead)	**max. 0.1ppm**
Solubility in Water	**Passes test**	Sn (Tin)	**max. 0.1ppm**
Al (Aluminum)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 010305

Acetone

AR

Appearance	**Clear colorless liquid**	2-Propanol	**max. 0.05%**
Acidity (as Acetic acid)	**max. 0.002%**	Methanol	**max. 0.05%**
Alkalinity (as Ammonia)	**max. 0.001%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 5**	Subs. reducing $KMnO_4$	**Passes test**
Aldehydes	**max. 0.002%**	Water (KF)	**max. 0.3%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Solubility in Water	**Passes test**

Cat. No. 010310

Acetone

MOS

Color (APHA)	**max. 10**	Fe (Iron)	**max. 20ppb**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Ga (Gallium)	**max. 10ppb**
Residue after evaporation	**max. 0.0005%w/w**	Ge (Germanium)	**max. 10ppb**
Water (KF)	**max. 0.3%w/w**	K (Potassium)	**max. 10ppb**
Acidity (as Acetic acid)	**max. 0.002%**	Li (Lithium)	**max. 10ppb**
Alkalinity (as Ammonia)	**max. 0.001%**	Mg (Magnesium)	**max. 20ppb**
Methanol	**max. 0.05%**	Mn (Manganese)	**max. 10ppb**
2-Propanol	**max. 0.05%**	Mo (Molybdenum)	**max. 10ppb**
Chloride (Cl)	**max. 0.2ppm**	Na (Sodium)	**max. 10ppb**
Phosphate (PO_4)	**max. 0.05ppm**	Nb (Niobium)	**max. 30ppb**
Heavy metals (as Pb)	**max. 0.5ppm**	Ni (Nickel)	**max. 10ppb**
Dilution test	**Passes test**	Pb (lead)	**max. 10ppb**
Ag (Silver)	**max. 10ppb**	Sb (Antimony)	**max. 10ppb**
Al (Aluminum)	**max. 50ppb**	Si (Silicon)	**max. 30ppb**
As (Arsenic)	**max. 5ppb**	Sn (Tin)	**max. 20ppb**
Au (Gold)	**max. 20ppb**	Sr (Strontium)	**max. 10ppb**
B (Boron)	**max. 10ppb**	Ta (Tantalum)	**max. 30ppb**
Ba (Barium)	**max. 20ppb**	Ti (Titanium)	**max. 10ppb**
Be (Beryllium)	**max. 10ppb**	Tl (Thallium)	**max. 10ppb**
Bi (Bismuth)	**max. 20ppb**	V (Vanadium)	**max. 10ppb**
Ca (Calcium)	**max. 25ppb**	Zn (Zinc)	**max. 20ppb**
Cd (Cadmium)	**max. 10ppb**	Zr (Zirconium)	**max. 10ppb**
Co (Cobalt)	**max. 10ppb**	Particle count > 0.5µm	**max. 100P/ml**
Cr (Chromium)	**max. 10ppb**	Particle count > 1µm	**max. 8P/ml**
Cu (Copper)	**max. 10ppb**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 010314

Acetone

AR Extra dry

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Subs. reducing $KMnO_4$	**Passes test**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.045%w/w**
Alkalinity (as Ammonia)	**max. 0.001%**	Solubility in Water	**Passes test**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Benzene	**max. 0.0015%v/v**
2-Propanol	**max. 0.05%**	Alfa-Mesytil oxide	**max. 0.0002%**
Methanol	**max. 0.05%**	Beta-Mesityl oxide	**max. 0.0002%**

Cat. No. 010364

Acetone

Meets ACS/EP/BP/USP spec.

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.004%w/w**
Appearance of solution	**Conforms**	Any other impurity	**max. 0.05%**
Solubility (5% in Water)	**The solution is clear**	Cr (Chromium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Cu (Copper)	**max. 0.1ppm**
Identity (IR)	**Conforms**	Fe (Iron)	**max. 0.1ppm**
Water insolubles	**Conforms**	Ir (Iridium)	**max. 0.1ppm**
Acidity or Alkalinity	**Conforms**	Mn (Manganese)	**max. 0.1ppm**
Relative density (20°C)	**0.790-0.793**	Mo (Molybdenum)	**max. 0.1ppm**
Specific gravity	**max. 0.789**	Ni (Nickel)	**max. 0.1ppm**
Reducing substances	**Conforms**	Os (Osmium)	**max. 0.1ppm**
Oxidisable substances	**Conforms**	Pd (Palladium)	**max. 0.1ppm**
Related substances	**Conforms**	Pt (Platinum)	**max. 0.1ppm**
Ethanol	**max. 0.05%**	Rh (Rhodium)	**max. 0.1ppm**
Methanol	**max. 0.05%**	Ru (Ruthenium)	**max. 0.1ppm**
2-Propanol	**max. 0.05%**	V (Vanadium)	**max. 0.1ppm**
Benzene	**max. 0.0002%v/v**	Zn (Zinc)	**max. 0.1ppm**
Water (KF)	**max. 0.3%w/w**		

Cat. No. 010303

Acetone

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Solubility (5% in Water)	**The solution is clear**
Identification B	**Passes EP/BP test**	Cr (Chromium)	**max. 0.1ppm**
Identification C	**Passes EP/BP test**	Cu (Copper)	**max. 0.1ppm**
Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 0.1ppm**
Appearance of solution	**Clear colorless solution 50%**	Ir (Iridium)	**max. 0.1ppm**
		Mn (Manganese)	**max. 0.1ppm**
Acidity or Alkalinity	**Passes EP/BP test**	Mo (Molybdenum)	**max. 0.1ppm**
Reducing substances	**Passes EP/BP test**	Ni (Nickel)	**max. 0.1ppm**
Relative density (20°C)	**0.790-0.793**	Os (Osmium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Pd (Palladium)	**max. 0.1ppm**
Odor	**Characteristic**	Pt (Platinum)	**max. 0.1ppm**
Residue after evaporation	**max. 0.005%w/w**	Rh (Rhodium)	**max. 0.1ppm**
Water (KF)	**max. 0.3%w/w**	Ru (Ruthenium)	**max. 0.1ppm**
Related substances	**Passes EP/BP test**	V (Vanadium)	**max. 0.1ppm**
Methanol	**max. 0.05%**	Zn (Zinc)	**max. 0.1ppm**
2-Propanol	**max. 0.05%**	Solubility	**Miscible with Water, Alcohol & Ether**
Benzene	**max. 0.0002%v/v**		
Any other impurity	**max. 0.05%**		

Cat. No. 010336

Acetone

Meets USP spec.

Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 0.1ppm**
Identification A	**IR spectra conforms**	Ir (Iridium)	**max. 0.1ppm**
Identification B	**RT conforms with standard**	Mn (Manganese)	**max. 0.1ppm**
		Mo (Molybdenum)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Ni (Nickel)	**max. 0.1ppm**
Specific gravity	**max. 0.789**	Os (Osmium)	**max. 0.1ppm**
Water (KF)	**max. 0.5%w/w**	Pd (Palladium)	**max. 0.1ppm**
Oxidisable substances	**Passes USP test**	Pt (Platinum)	**max. 0.1ppm**
Ethanol	**max. 0.05%**	Rh (Rhodium)	**max. 0.1ppm**
Methanol	**max. 0.05%**	Ru (Ruthenium)	**max. 0.1ppm**
Benzene	**max. 0.0002%v/v**	V (Vanadium)	**max. 0.1ppm**
Methyl ethyl ketone	**max. 0.05%**	Zn (Zinc)	**max. 0.1ppm**
Other residual solvents	**Meets the requirements**	Residue after evaporation	**max. 0.004%w/w**
Cr (Chromium)	**max. 0.1ppm**		
Cu (Copper)	**max. 0.1ppm**		

Cat. No. 010304

Acetone

FCC / Food grade

Identification	**Passes FCC test**	Residue after evaporation	**max. 0.001%w/w**
Appearance	**Clear colorless liquid**	Subs. reducing $KMnO_4$	**Passes FCC test**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.5%w/w**
Alkalinity (as Ammonia)	**max. 0.001%**	Phenols	**Passes FCC test**
Color (APHA)	**max. 10**	As (Arsenic)	**max. 0.05ppm**
Specific gravity	**max. 0.7880**	Cd (Cadmium)	**max. 1ppm**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Fe (Iron)	**max. 1ppm**
Distillation range	**Passes FCC test**	Hg (Mercury)	**max. 1ppm**
Refractive index (20/D)	**1.358-1.360**	Ni (Nickel)	**max. 0.2ppm**
Aldehydes	**Passes FCC test**	Pb (Lead)	**max. 1ppm**
Methanol	**max. 0.05%**	Sn (Tin)	**max. 0.5ppm**
Solubility (50% in Water)	**Clear colorless solution**	Zn (Zinc)	**max. 0.5ppm**

Cat. No. 010347

Acetone

Extra dry

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	Subs. reducing $KMnO_4$	**Passes test**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.01%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**		

Cat. No. 010353

Acetone

Extra dry / M. sieves

Acidity (as Acetic acid)	**max. 0.003%**	Subs. reducing $KMnO_4$	**Passes test**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Water (KF)	**max. 0.01%w/w**
Residue after evaporation	**max. 0.001%w/w**		

Cat. No. 010333

Acetone

Peptide synthesis

Appearance	**Clear colorless liquid**	2-Propanol	**max. 0.05%**
Acidity (as Acetic acid)	**max. 0.002%**	Methanol	**max. 0.05%**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.001%w/w**
Free Amines (Kaiser)	**max. 0.001%**	Water (KF)	**max. 0.1%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 010332

Acetone

Peptide-S

Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.1%w/w**
Free Amines (Kaiser)	**max. 0.0003%**	Fe (Iron)	**max. 0.1ppm**
F365nm (as Quinine)	**max. 1ppb**	Mg (Magnesium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Pb (Lead)	**max. 0.1ppm**
2-Propanol	**max. 0.05%**	Zn (Zinc)	**max. 0.1ppm**
Methanol	**max. 0.05%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 010302

Acetone

CP

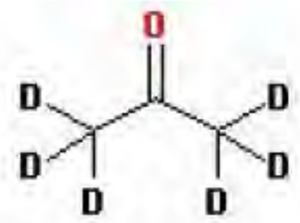
Appearance	**Clear colorless liquid**
Assay (GC, on anhydrous basis)	**min. 99.5%**
Residue after evaporation	**max. 0.003%w/w**
Water (KF)	**max. 0.3%w/w**

Acetone-d6, 100 atom%D

CAS [666-52-4]; EC 211-563-9; D_6C_3O; M 64.11

D 0.874; m.p. -93 °C; b.p. 55.5 °C; UN 1090,3,II,F1

Danger H:225; P:210-240-241-280-303+361+353-501



Cat. No. 301795 ***Acetone-d6, 100 atom%D***

For NMR

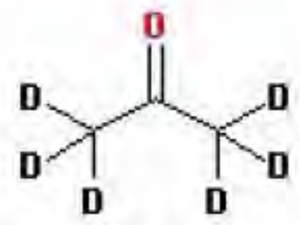
Enrichment (NMR)	**min. 99.95Atom%D**
Water (KF)	**max. 0.02% H_2O+D_2O**

Acetone-d6, 99.9 atom%D

CAS [666-52-4]; EC 211-563-9; D_6C_3O; M 64.11

D 0.84; m.p. -93 °C; b.p. 55.5 °C; UN 1090,3,II,F1

Danger H:225; P:210-240-241-280-303+361+353-501



Cat. No. 301695 ***Acetone-d6, 99.9 atom%D***

For NMR

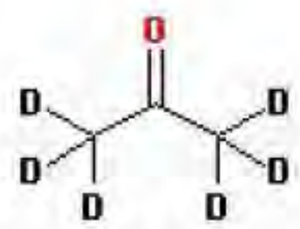
Enrichment (NMR)	**min. 99.9Atom%D**
Water (KF)	**max. 0.025% H_2O+D_2O**

Acetone-d6, 99.8 atom%D

CAS [666-52-4]; EC 211-563-9; C_3D_6O; M 64.13

D 0.874; m.p. -93 °C; b.p. 55.5 °C; UN 1090,3,II,F1

Danger H:225; P:210-240-241-280-303+361+353-501



Cat. No. 306095 ***Acetone-d6, 99.8 atom%D***

For NMR

Appearance	**Clear colorless liquid**
Enrichment (NMR)	**min. 99.8Atom%D**
Water (KF)	**max. 0.03% H_2O+D_2O**

Acetone-d6, 99.5 atom%D

CAS [666-52-4]; EC 211-563-9; D_6C_3O; M 64.11

D 0.874; m.p. -93 °C; b.p. 55.5 °C; UN 1090,3,II,F1

Danger H:225; P:210-240-241-280-303+361+353-501

Cat. No. 301595 ***Acetone-d6, 99.5 atom%D***

For NMR

Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.025% H_2O+D_2O**

Acetonitrile

Synonym: *ACN, Methyl cyanide*

CAS [75-05-8]; EC 200-835-2; C_2H_3N; M 41.04

D 0.781; m.p. -46 °C; b.p. 81-82 °C; UN 1648,3,II,F1

Danger H:225-302-312-319-332; P:210-241-303+361+353-305+351+338-501

Cat. No. 012041

Acetonitrile

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	Al (Aluminum)	**max. 20ppb**
Color (APHA)	**max. 5**	Ba (Barium)	**max. 50ppb**
Assay (GC, on anhydrous basis)	**min. 99.97%**	Bi (Bismuth)	**max. 50ppb**
Residue after evaporation	**max. 0.0001%w/w**	Ca (Calcium)	**max. 50ppb**
Water (KF)	**max. 0.01%w/w**	Cd (Cadmium)	**max. 50ppb**
Acidity (as Acetic acid)	**max. 0.001%**	Co (Cobalt)	**max. 20ppb**
Alkalinity (as Ammonia)	**max. 0.0001%**	Cr (Chromium)	**max. 20ppb**
MS-ESI+ (as Reserpine)	**max. 6ppb**	Fe (Iron)	**max. 20ppb**
H.Peak by PDAD 210-400nm	**max. 0.001AU**	K (Potassium)	**max. 50ppb**
Grad. elution H.Peak at 210nm	**max. 0.001AU**	Li (Lithium)	**max. 50ppb**
Grad. elution drift at 210nm	**max. 0.006AU**	Mg (Magnesium)	**max. 20ppb**
Grad. elution H.Peak at 254nm	**max. 0.0003AU**	Mn (Manganese)	**max. 20ppb**
Grad. elution drift at 254nm	**max. 0.002AU**	Mo (Molybdenum)	**max. 50ppb**
F254nm (as Quinine)	**max. 0.3ppb**	Na (Sodium)	**max. 50ppb**
F365nm (as Quinine)	**max. 0.3ppb**	Ni (Nickel)	**max. 20ppb**
T191nm	**min. 30%**	Pb (lead)	**max. 20ppb**
T195nm	**min. 85%**	Sn (Tin)	**max. 50ppb**
T200nm	**min. 97%**	Sr (Strontium)	**max. 50ppb**
T215nm	**min. 98%**	Zn (Zinc)	**max. 50ppb**
T>230nm	**min. 99%**	Cu (Copper)	**Not detected**
Ag (Silver)	**max. 50ppb**		

Filtered through 0.1µm, filled under inert gas.

Cat. No. 012078

Acetonitrile

LC-MS

Appearance	**Clear colorless liquid**	Bi (Bismuth)	**max. 0.1ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Ca (Calcium)	**max. 0.05ppm**
Alkalinity (as Ammonia)	**max. 0.0002%**	Cd (Cadmium)	**max. 0.05ppm**
Color (APHA)	**max. 5**	Co (Cobalt)	**max. 0.05ppm**
Assay (GC, on anhydrous basis)	**min. 99.95%**	Cr (Chromium)	**max. 0.02ppm**
Residue after evaporation	**max. 0.0001%w/w**	Cu (Copper)	**max. 0.02ppm**
Water (KF)	**max. 0.02%w/w**	Fe (Iron)	**max. 0.02ppm**
MS-ESI+ (as Reserpine)	**max. 25ppb**	K (Potassium)	**max. 0.05ppm**
Grad. elution H.Peak at 210nm	**max. 0.002AU**	Li (Lithium)	**max. 0.1ppm**
Grad. elution H.Peak at 254nm	**max. 0.0005AU**	Mg (Magnesium)	**max. 0.05ppm**
F254nm (as Quinine)	**max. 0.5ppb**	Mn (Manganese)	**max. 0.02ppm**
F365nm (as Quinine)	**max. 0.5ppb**	Mo (Molybdenum)	**max. 0.05ppm**
T195nm	**min. 78%**	Na (Sodium)	**max. 0.05ppm**
T200nm	**min. 95%**	Ni (Nickel)	**max. 0.02ppm**
T220nm	**min. 98%**	Pb (Lead)	**max. 0.02ppm**
T240nm	**min. 99%**	Sn (Tin)	**max. 0.05ppm**
Ag (Silver)	**max. 0.1ppm**	Sr (Strontium)	**max. 0.05ppm**
Al (Aluminum)	**max. 0.05ppm**	Zn (Zinc)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 012035

Acetonitrile

HPLC Supra-gradient (Reag. EP/BP/USP)

Appearance	**Clear colorless liquid**	A250-280nm (Vs. air)	**max. 0.01AU**
Acidity (as Acetic acid)	**max. 0.001%**	Ag (Silver)	**max. 0.1ppm**
Alkalinity (as Ammonia)	**max. 0.0001%**	Al (Aluminum)	**max. 0.05ppm**
Color (APHA)	**max. 5**	Ba (Barium)	**max. 0.1ppm**
F254nm (as Quinine)	**max. 0.3ppb**	Bi (Bismuth)	**max. 0.1ppm**
F365nm (as Quinine)	**max. 0.3ppb**	Ca (Calcium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.97%**	Cd (Cadmium)	**max. 0.05ppm**
Grad. elution H.Peak at 210nm	**max. 0.001AU**	Co (Cobalt)	**max. 0.1ppm**
Grad. elution drift at 210nm	**max. 0.006AU**	Cr (Chromium)	**max. 0.05ppm**
Grad. elution H.Peak at 254nm	**max. 0.0003AU**	Cu (Copper)	**max. 0.05ppm**
Grad. elution drift at 254nm	**max. 0.002AU**	Fe (Iron)	**max. 0.02ppm**
Residue after evaporation	**max. 0.0001%w/w**	K (Potassium)	**max. 0.1ppm**
Water (KF)	**max. 0.01%w/w**	Li (Lithium)	**max. 0.1ppm**
Identity (IR)	**Conforms to standard**	Mg (Magnesium)	**max. 0.05ppm**
T191nm	**min. 30%**	Mn (Manganese)	**max. 0.05ppm**
T195nm	**min. 85%**	Mo (Molybdenum)	**max. 0.05ppm**
T200nm	**min. 97%**	Na (Sodium)	**max. 0.1ppm**
T215nm	**min. 98%**	Ni (Nickel)	**max. 0.02ppm**
T220nm	**min. 98%**	Pb (Lead)	**max. 0.05ppm**
T230nm	**min. 99%**	Sn (Tin)	**max. 0.05ppm**
T254nm	**min. 99%**	Sr (Strontium)	**max. 0.05ppm**
A200nm	**max. 0.01AU**	Zn (Zinc)	**max. 0.1ppm**
T225-420nm	**min. 98%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 012007

Acetonitrile

HPLC-S

Appearance	**Clear colorless liquid**	Grad. elution drift at 254nm	**max. 0.003AU**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.0002%w/w**
Alkalinity (as Ammonia)	**max. 0.0002%**	Water (KF)	**max. 0.02%w/w**
Color (APHA)	**max. 5**	T193nm	**min. 60%**
F254nm (as Quinine)	**max. 0.5ppb**	T195nm	**min. 80%**
F365nm (as Quinine)	**max. 0.5ppb**	T200nm	**min. 95%**
Assay (GC, on anhydrous basis)	**min. 99.95%**	T220nm	**min. 98%**
Grad. elution H.Peak at 210nm	**max. 0.002AU**	T230nm	**min. 98%**
Grad. elution drift at 210nm	**max. 0.01AU**	T254nm	**min. 99%**
Grad. elution H.Peak at 254nm	**max. 0.0005AU**	Identity (IR)	**Conforms to standard**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 012013

Acetonitrile

HPLC-R

Appearance	**Clear colorless liquid**	T195nm	**min. 72%**
Acidity (as Acetic acid)	**max. 0.002%**	T200nm	**min. 92%**
Alkalinity (as Ammonia)	**max. 0.0002%**	T230nm	**min. 97%**
Color (APHA)	**max. 5**	T240nm	**min. 98%**
F254nm (as Quinine)	**max. 1ppb**	T254nm	**min. 99%**
F365nm (as Quinine)	**max. 1ppb**	Identity (IR)	**Conforms to standard**
Assay (GC, on anhydrous basis)	**min. 99.9%**		
Residue after evaporation	**max. 0.0004%w/w**		
Water (KF)	**max. 0.05%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 012089

Acetonitrile

HPLC-PLUS

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.02%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	T230nm	**min. 85%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T254nm	**min. 95%**
Residue after evaporation	**max. 0.0005%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 012006

Acetonitrile

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.1%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T200nm	**min. 85%**
Color (APHA)	**max. 10**	T220nm	**min. 98%**
Assay (GC, on anhydrous basis)	**min. 99.7%**	T254nm	**min. 99%**
Residue after evaporation	**max. 0.001%w/w**		

Cat. No. 012016

Acetonitrile

HPLC Preparative

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.02%w/w**
Acidity (as Acetic acid)	**max. 0.005%**	T200nm	**min. 70%**
Color (APHA)	**max. 10**	T230nm	**min. 95%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T254nm	**min. 98%**
Residue after evaporation	**max. 0.001%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 012038

Acetonitrile

Spectrofluopure

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.02%w/w**
Color (APHA)	**max. 10**	T200nm	**min. 95%**
F254nm (as Quinine)	**max. 0.5ppb**	T220nm	**min. 98%**
F365nm (as Quinine)	**max. 0.5ppb**	T254nm	**min. 99%**
Assay (GC, on anhydrous basis)	**min. 99.9%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 012084

Acetonitrile

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0003%w/w**
Acidity (as Acetic acid)	**max. 0.0015%**	Water (KF)	**max. 0.02%w/w**
Color (APHA)	**max. 10**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F254nm (as Quinine)	**max. 0.5ppb**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
F365nm (as Quinine)	**max. 0.5ppb**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	GC/ECD volatile impu. (as E. Dibromide)	**max. 5ng/ml**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	T200nm	**min. 96%**
PAH test (<2ppb by HPLC)	**Passes test**		

Filtered through 0.1µm, filled under inert gas.

Cat. No. 012060

Acetonitrile

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.05%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Color (APHA)	**max. 5**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 99.95%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 012026

Acetonitrile

Pesti-S

Appearance	**Clear colorless liquid**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Acidity (as Acetic acid)	**max. 0.002%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Color (APHA)	**max. 5**	Residue after evaporation	**max. 0.0005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Water (KF)	**max. 0.1%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 012005

Acetonitrile

AR

Appearance	**Clear colorless liquid**	Acetone	**max. 0.01%**
Acidity (as Acetic acid)	**max. 0.003%**	Acrylonitrile	**max. 0.01%**
Alkalinity (as Ammonia)	**max. 0.001%**	Allyl alcohol	**max. 0.01%**
Color (APHA)	**max. 10**	Methacrylonitrile	**max. 0.01%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Methyl ethyl ketone	**max. 0.01%**
Residue after evaporation	**max. 0.0005%w/w**	Propionitrile	**max. 0.1%**
Water (KF)	**max. 0.1%w/w**	Any other impurity	**max. 0.1%**

Cat. No. 012051

Acetonitrile

AR-S glass distilled

Acidity (as Acetic acid)	**max. 0.003%**	B (Boron)	**max. 0.02ppm**
Alkalinity (as Ammonia)	**max. 0.001%**	Ba (Barium)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Ca (Calcium)	**max. 0.5ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Cd (Cadmium)	**max. 0.05ppm**
Residue after evaporation	**max. 0.0003%w/w**	Co (Cobalt)	**max. 0.02ppm**
Water (KF)	**max. 0.05%w/w**	Cr (Chromium)	**max. 0.02ppm**
Acetone	**max. 0.005%**	Cu (Copper)	**max. 0.02ppm**
Acrylonitrile	**max. 0.005ppm**	Fe (Iron)	**max. 0.1ppm**
Allyl alcohol	**max. 0.005ppm**	Mg (Magnesium)	**max. 0.1ppm**
Methacrylonitrile	**max. 0.005ppm**	Mn (Manganese)	**max. 0.02ppm**
Methyl ethyl ketone	**max. 0.005%**	Ni (Nickel)	**max. 0.02ppm**
Propionitrile	**max. 0.05%**	Pb (Lead)	**max. 0.1ppm**
Any other impurity	**max. 0.05%**	Sn (Tin)	**max. 0.1ppm**
Al (Aluminum)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 012059

Acetonitrile

Supra dry

Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 10**	Subs. reducing $KMnO_4$	**Passes test**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Water (KF)	**max. 0.001%w/w**

Cat. No. 012053

Acetonitrile

Extra dry / M. sieves

Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.003%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**		
Residue after evaporation	**max. 0.001%w/w**		

Cat. No. 012054

Acetonitrile

Extra dry, DNA synthesis

Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.0003%w/w**
Color (APHA)	**max. 5**	Subs. reducing $KMnO_4$	**Passes test**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Water (KF)	**max. 0.003%w/w**

Cat. No. 012058

Acetonitrile

Diluent for DNA synthesis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0003%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Subs. reducing $KMnO_4$	**Passes test**
Color (APHA)	**max. 5**	Water (KF)	**max. 0.001%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 012024

Acetonitrile

DNA synthesis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0001%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.0009%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**		

Cat. No. 012031

Acetonitrile

Peptidepreparative

Appearance	**Clear colorless liquid**	Acetamide	**max. 3ppm**
Acidity (as Acetic acid)	**max. 0.0015%**	T200nm	**min. 75%**
Alkalinity (as Ammonia)	**max. 0.0002%**	T205nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 99.95%**	T210nm	**min. 85%**
Other impurities	**max. 0.01%**	T215nm	**min. 88%**
Propionitrile	**max. 0.04%**	T220nm	**min. 90%**
Iron (Fe)	**max. 0.1ppm**	T225nm	**min. 92%**
Residue after evaporation	**max. 0.0002%w/w**	T230nm	**min. 95%**
Water (KF)	**max. 0.03%w/w**	T235nm	**min. 97%**
Acrylonitrile	**max. 5ppm**	T240nm	**min. 98%**
Allyl alcohol	**max. 5ppm**	T245nm	**min. 99%**
Methacrylonitrile	**max. 5ppm**	T250nm	**min. 99%**

Filtered through 0.2µm, bottled under inert gas.

Cat. No. 012095

Acetonitrile

For NMR

Appearance	**Clear colorlss liquid**	Propionitrile	**max. 0.04%**
Acidity (as Acetic acid)	**max. 0.002%**	Iron (Fe)	**max. 0.0001%**
Alkalinity (as Ammonia)	**max. 0.0002%**	Residue after evaporation	**max. 0.001%w/w**
Copper (Cu)	**max. 0.0001%**	Water (KF)	**max. 0.05%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Acrylonitrile	**max. 20ppm**

Cat. No. 012099

Acetonitrile

General reagent

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T195nm	**min. 85%**
Color (APHA)	**max. 5**	T200nm	**min. 97%**
Assay (GC, on anhydrous basis)	**min. 99.95%**	T220nm	**min. 98%**
Residue after evaporation	**max. 0.0003%w/w**	T254nm	**min. 99%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 012002

Acetonitrile

CP

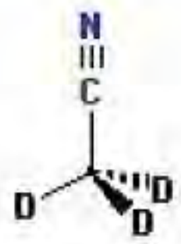
Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Identity (IR)	**Conforms to reference**
Water (KF)	**max. 0.1%w/w**	Refractive index (20/D)	**1.3430-1.3450**

Acetonitrile-d3, 100 atom%D

CAS [2206-26-0]; EC 218-616-5; C_2D_3N; M 44.07

D 0.84; m.p. -46 °C; b.p. 79-81 °C; UN 1648,3,II,F1

Danger H:225-302-312-319-332; P:210-241-303+361+353-305+351+338-501



Cat. No. 302095

Acetonitrile-d3, 100 atom%D

For NMR

Enrichment (NMR)	**min. 99.95Atom%D**
Water (KF)	**max. 0.02% H_2O+D_2O**

Acetonitrile-d3, 99.9 atom%D

CAS [2206-26-0]; EC 218-616-5; C_2D_3N; M 44.07

D 0.84; m.p. -46 °C; b.p. 79-81 °C; UN 1648,3,II,F1

Danger H:225-302-312-319-332; P:210-241-303+361+353-305+351+338-501

Cat. No. 301995

Acetonitrile-d3, 99.9 atom%D

For NMR

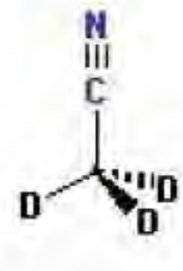
Enrichment (NMR)	**min. 99.9Atom%D**
Water (KF)	**max. 0.025% H_2O+D_2O**

Acetonitrile-d3, 99.8 atom%D

CAS [2206-26-0]; EC 218-616-5; C_2D_3N; M 44.07

D 0.84; m.p. -46 °C; b.p. 79-81 °C; UN 1648,3,II,F1

Danger H:225-302-312-319-332; P:210-241-303+361+353-305+351+338-501



Cat. No. 306195

Acetonitrile-d3, 99.8 atom%D

For NMR

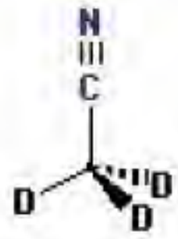
Appearance	**Clear colorless liquid**
Enrichment (NMR)	**min. 99.8Atom%D**
Water (KF)	**max. 0.03% H_2O+D_2O**

Acetonitrile-d3, 99.5 atom%D

CAS [2206-26-0]; EC 218-616-5; C_2D_3N; M 44.07

D 0.844; m.p. -46 °C; b.p. 79-81 °C; UN 1648,3,II,F1

Danger H:225-302-312-319-332; P:210-241-303+361+353-305+351+338-501



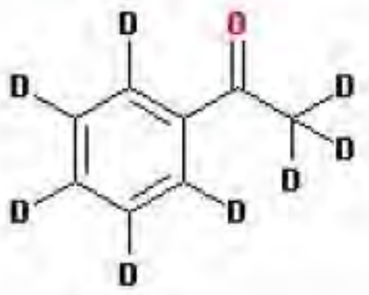
Cat. No. 301895 ***Acetonitrile-d3, 99.5 atom%D***

For NMR

Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.05% H_2O+D_2O**

Acetophenone-d8, 98 atom%D

CAS [19547-00-3]; $CD_3COC_6D_5$; M 128.22; D 1.10



Warning; H:302-319; P:264-280-301+312-305+351+338-337+313-501

Cat. No. 302195 ***Acetophenone-d8, 98 atom%D***

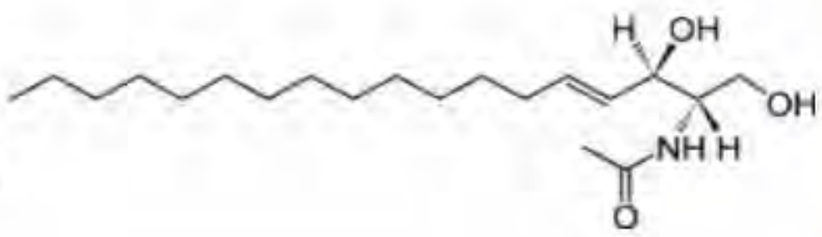
For NMR

Enrichment (NMR)	**min. 98Atom%D**
Water (KF)	**max. 0.05% H_2O+D_2O**

N-Acetoyl-D-erythro-Sphingosine (C2 Ceramide)

Synonym: Ceramide C2; N-(acetoyl)-sphing-4-enine.

CAS [195194-58-2]; $C_{20}H_{39}NO_3$; M 341.293;



Cat. No. 039080 ***N-Acetoyl-D-erythro-Sphingosine (C2 Ceramide)***

For synthesis

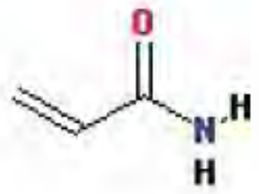
Appearance	**White to off-white solid**
Assay (HPLC)	**min. 98%**
Purity (TLC)	**min. 98%**
NMR H^1 spectrum	**Conforms to structure**

Acrylamide 4X

Synonym: 2-Propenamide, Acrylic acid amide

CAS [79-06-1]; EC 201-173-7; C_3H_5NO; M 71.08

m.p. 83 - 85 °C; b.p. 125 °C at 25mmHg; UN 2074,6.1,III,T2;



Danger H:301-312-315-317-319-332-340-350-372-361f; P:260-301+310-305+351+338-321-405

Cat. No. 014680 ***Acrylamide 4X***

For synthesis

Appearance	**White crystalline powder**	Solubility (50% in Water)	**Clear colorless solution**
Assay Acrylamide (on dry basis)	**min. 99.9%**	Water insolubles	**max. 0.005%**
Acrylic acid	**max. 0.001%**	pH (5% in water)	**5.0-6.5**

Cat. No. 014623

Acrylamide 4X

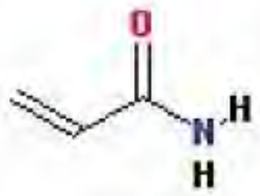
Molecular biology

Appearance	**White crystalline powder**	Residual Methanol (GC)	**max. 0.5%**
Conductivity (40% in water)	**max. 5µS/cm**	A290nm (1%)	**max. 0.1AU**
Assay Acrylamide (on dry basis)	**min. 99.5%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	RNase activity	**Not detected**
Acrylic acid	**max. 0.003%**	Protease activity	**Not detected**

Acrylamide 4X, 40%

Synonym: 2-Propenamide, Acrylic acid amide

CAS [79-06-1]; EC 201-173-7; C_3H_5NO; M 71.08



Danger H:301-312-315-317-319-340-350-372-361f; P:260-301+310-305+351+338-321-405

Cat. No. 013123

Acrylamide 4X, 40%

Molecular biology

Appearance	**Clear colorless liquid**	Acrylic acid	**max. 0.001%**
Conductivity (40% in water)	**max. 5µS/cm**	A290nm (1%)	**max. 0.1AU**
Assay Acrylamide (on dry basis)	**min. 99.5%**	DNase activity	**Not detected**
Assay (content)	**39-41%w/v**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0002%**	Protease activity	**Not detected**

Acrylamide/1,4-Bis(acryloyl)piperazine 37.5:1, 30%

D 1.05; UN 2810,6.1,III,T1;

Danger H:302-312-315-317-319-340-350-361-372; P:260-261-305+351+338-321

Cat. No. 014523

Acrylamide/1.4-Bis(acryloyl)piperazine 37.5:1, 30%

Molecular biology

Appearance	**Clear colorless liquid**	Composition	**Complies**
Conductivity (at bottling)	**max. 25µS/cm**	DNase activity	**Not detected**
Assay (content)	**28.5-31.5%w/v**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
Polymerization time	**max. 30min.**		
Acrylic acid	**max. 0.001%**		

Filtered through 1µm, filled under inert gas.

Acrylamide/Bis-Acrylamide 19:1, 40%

D 1.035; UN 2810,6.1,III,T1;

Danger H:302-312-315-317-319-340-350-361-372; P:260-261-305+351+338-321

Specification continues on the next page

Cat. No. 013523

Acrylamide/Bis-Acrylamide 19:1, 40%

Molecular biology

Application: Commonly used for DNA sequencing and separation of low-molecular-weight proteins

Appearance	**Clear colorless liquid**	A290nm (1%)	**max. 0.1AU**
Conductivity (40% in water)	**max. 5µS/cm**	DNase activity	**Not detected**
Assay (content)	**39-41%w/v**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0002%**	Protease activity	**Not detected**
Polymerization time	**max. 30min.**		
Acrylic acid	**max. 0.001%**		
Composition	**Complies**		

Filtered through 1µm, filled under inert gas.

Acrylamide/Bis-Acrylamide 29:1, 40%

D 1.035; UN 2810,6.1,III,T1;

Danger H:302-312-315-317-319-340-350-361-372; P:260-261-305+351+338-321

Cat. No. 013823

Acrylamide/Bis-Acrylamide 29:1, 40%

Molecular biology

Application: Commonly used for DNA sequencing and separation of proteins by electrophoresis.

Appearance	**Clear colorless liquid**	A290nm (1%)	**max. 0.1AU**
Conductivity (40% in water)	**max. 5µS/cm**	DNase activity	**Not detected**
Assay (content)	**39-41%w/v**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0002%**	Protease activity	**Not detected**
Polymerization time	**max. 30min.**		
Acrylic acid	**max. 0.001%**		
Composition	**Complies**		

Filtered through 1µm, filled under inert gas.

Acrylamide/Bis-Acrylamide 37.5:1, 30%

D 1.02; UN 2810,6.1,III,T1;

Danger H:302-312-315-317-319-340-350-372-361f; P:260-261-305+351+338-321-405

Cat. No. 015223

Acrylamide/Bis-Acrylamide 37.5:1, 30%

Molecular biology

Application: Commonly used for separation of high-molecular-weight proteins.

Appearance	**Clear colorless liquid**	A290nm (1%)	**max. 0.1AU**
Conductivity (at bottling)	**max. 3µS/cm**	DNase activity	**Not detected**
Assay (content)	**29-31%w/v**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0002%**	Protease activity	**Not detected**
Polymerization time	**max. 30min.**		
Acrylic acid	**max. 0.001%**		
Composition	**Complies**		

Filtered through 1µm, filled under inert gas.

Acrylamide/Bis-Acrylamide 37.5:1, 40%

D 1.035; UN 2810,6.1,III,T1;

Danger H:302-312-315-317-319-340-350-372-361f; P:260-261-305+351+338-321

Cat. No. 014223

Acrylamide/Bis-Acrylamide 37.5:1, 40%

Molecular biology

Application: Commonly used for separation of high-molecular-weight proteins.

Appearance	**Clear colorless liquid**	A290nm (1%)	**max. 0.1AU**
Conductivity (40% in water)	**max. 5µS/cm**	DNase activity	**Not detected**
Assay (content)	**39-41%w/v**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0002%**	Protease activity	**Not detected**
Polymerization time	**max. 30min.**		
Acrylic acid	**max. 0.001%**		
Composition	**Complies**		

Filtered through 1µm, filled under inert gas.

Activated charcoal

Synonym: *Carbone activated*

CAS [7440-44-0]; EC 231-153-3; C; M 12.01

Danger H:228-252; P:210-235+410-240-241-280-420

Cat. No. 038180

Activated charcoal

For synthesis

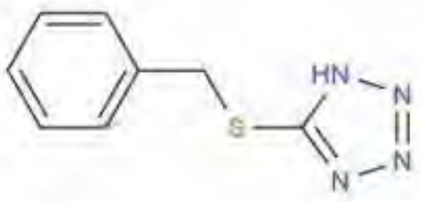
Appearance	**Black solid**	Apparent density	**0.46-0.48gr/ml**
Moisture	**max. 5%**	Particle size	**Complies**
Loss on ignition	**max. 15%**		

Activator BTT 0.25M

Synonym: *5-(Benzylthio)-1H-Tetrazole*

Composition: *0.25M 5-(Benzylthio)-1H-Tetrazole in Acetonitrile*

CAS [21871-47-6]; $C_8H_8N_4S$; M 192.24; UN 1648,3,II,F1



Danger H:225-312-318-332; P:101-102-103-210-241-303+361+353-305+351+338-310

Cat. No. 203824

Activator BTT 0.25M

DNA synthesis

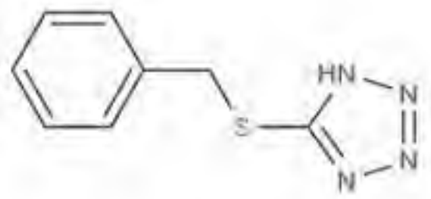
Appearance	**Clear colorless solution**	Purity of BTT (HPLC)	**min. 99.5%**
Assay (T)	**0.24-0.26M**		
Water (KF)	**max. 0.003%w/w**		

Begins to crystallize under 15°C.

Activator BTT 0.3M

Synonym: *5-(Benzylthio)-1H-Tetrazole*
Composition: *0.30M 5-(Benzylthio)-1H-Tetrazole in Acetonitrile*

CAS [21871-47-6]; $C_8H_8N_4S$; M 192.24; UN 1648,3,II,F1



Danger H:225-312-318-332; P:101-102-103-210-241-303+361+353-305+351+338-310

Cat. No. 216224

Activator BTT 0.3M

DNA synthesis

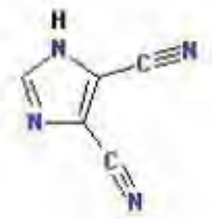
Appearance	**Clear colorless solution**
Assay (T)	**0.28-0.32M**
Water (KF)	**max. 0.003%w/w**

Begins to crystallize under 15°C.

Activator DCI 0.25M

Synonym: *4,5-Dicyanoimidazole*
Composition: *0.25M 4,5-Dicyanoimidazole in Acetonitrile*

CAS [1122-28-7]; $C_5H_2N_4$; M 118.1; UN 1993,3,II,F1



Danger H:225-312-319-332; P:210-241-261-303+361+353-305+351+338

Cat. No. 047124

Activator DCI 0.25M

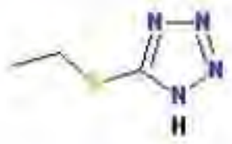
DNA synthesis

Appearance	**Clear solution**	DCI assay	**0.23-0.27M**
Purity DCI (HPLC)	**min. 99.5%**		
Water (KF)	**max. 0.003%w/w**		

Activator ETT 0.25M

Synonym: *5-(Ethylthio)-1H-Tetrazole*
Composition: *0.25M 5-(Ethylthio)-1H-Tetrazole in Acetonitrile*

CAS [89797-68-2]; $C_3H_6N_4S$; M 130.17; UN 1648,3,II,F1



Danger H:225-312-319-332; P:210-241-261-303+361+353-305+351+338

Cat. No. 205324

Activator ETT 0.25M

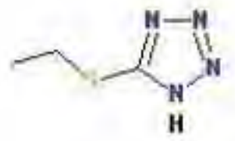
DNA synthesis

Appearance	**Clear colorless liquid**	Purity ETT (HPLC)	**min. 99.8%**
Water (KF)	**max. 0.003%w/w**		
Assay (T)	**0.23-0.27M**		

Activator ETT 0.3M

Synonym: *5-(Ethylthio)-1H-Tetrazole*
Composition: *0.3M 5-(Ethylthio)-1H-Tetrazole in Acetonitrile*

CAS [89797-68-2]; UN 1648,3,II,F1;



Danger H:225-312-319-332; P:210-241-261-303+361+353-305+351+338

Cat. No. 211724

Activator ETT 0.3M

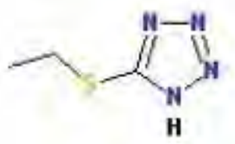
DNA synthesis

Appearance	**Clear colorless liquid**	Purity ETT (HPLC)	**min. 99.8%**
Water (KF)	**max. 0.005%w/w**		
Assay (T)	**0.28-0.32M**		

Activator ETT 0.5M

Synonym: *5-(Ethylthio)-1H-Tetrazole*
Composition: *0.5M 5-(Ethylthio)-1H-Tetrazole in Acetonitrile*

CAS [89797-68-2]; $C_3H_6N_4S$; M 130.17; b.p. 81 °C



Danger H:225-312-319-332; EUH:044; P:210-241-261-303+361+353-305+351+338

Cat. No. 221124

Activator ETT 0.5M

DNA synthesis

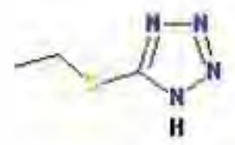
Appearance	**Clear colorless liquid**	Purity ETT (HPLC)	**min. 99.8%**
Water (KF)	**max. 0.005%w/w**		
Assay (T)	**0.48-0.52M**		

0.5M ETT/Acetonitrile

Activator ETT 0.75M

Synonym: *5-(Ethylthio)-1H-Tetrazole*
Composition: *0.75M 5-(Ethylthio)-1H-Tetrazole in Acetonitrile*

CAS [89797-68-2]; M 130.17; b.p. 81 °C; UN 1648,3,II,F1



Danger H:225-312-315-319-332; P:210-241-303+361+353-305+351+338-321

Cat. No. 207924

Activator ETT 0.75M

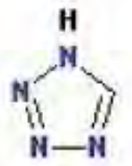
DNA synthesis

Appearance	**Clear liquid**	Purity ETT (HPLC)	**min. 99.8%**
Water (KF)	**max. 0.005%w/w**		
Assay (T)	**0.73-0.77M**		

Activator Tetrazole 0.4M

Synonym: *1H-Tetrazole*
Composition: *0.4M 1H-Tetrazole in Acetonitrile*

CAS [288-94-8]; CH_2N_4; M 70.05; UN 1648,3,II,F1



Danger H:225-312-319-332; P:210-241-261-303+361+353-305+351+338

Specification continues on the next page

Cat. No. 206924

Activator Tetrazole 0.4M

DNA synthesis

Appearance	**Clear colorless liquid**	Purity of ACN	**min. 99.9%**
Water (KF)	**max. 0.005%w/w**	Purity of 1H-Tetrazole	**min. 99.9%**
Assay (Tetrazole)	**26.6-29.4gr/L**		

Activator Tetrazole 0.45M

Synonym: *1H-Tetrazole*
Composition: *0.45M 1H-Tetrazole in Acetonitrile*

CAS [288-94-8]; CH_2N_4; M 70.05; UN 1648,3,II,F1

Danger H:225-312-319-332; P:210-241-261-303+361+353-305+351+338

Cat. No. 200824

Activator Tetrazole 0.45M

DNA synthesis

Appearance	**Clear colorless liquid**
Water (KF)	**max. 0.003%w/w**
Assay (Tetrazole)	**30-32gr/L**

Agarose I

CAS [9012-36-6]; EC 232-731-8;

Cat. No. 017123

Agarose I

Molecular biology

Electroendosmosis (-MR)	**0.08-0.14**	Sulfate (SO_4)	**max. 0.09%**
Gel strength (1.5% gel.)	**2200-4000gr/cm^2**	DNase activity	**Not detected**
Gelling temperature (1.5% sol)	**34-37°C**	RNase activity	**Not detected**
Melting temperature (1.5% sol)	**max. 92°C**	Protease activity	**Not detected**
Loss on drying (105°C)	**max. 10%**	Residue after ignition	**max. 1%**

Agarose II

CAS [9012-36-6]; EC 232-731-8;

Cat. No. 017223

Agarose II

Molecular biology

Gelling temperature (4% sol.)	**31-39°C**	Sulfate (SO_4)	**max. 0.15%**
Gel strength (4% gel)	**1200-2500gr/cm^2**	Residue after ignition	**max. 1%**
Electroendosmosis (-MR)	**0.06-0.14**	DNase activity	**Not detected**
Melting temperature (4% sol.)	**max. 92°C**	RNase activity	**Not detected**
Loss on drying (105°C)	**max. 10%**	Protease activity	**Not detected**

Agarose III

CAS [9012-36-6]; EC 232-731-8;

Cat. No. 017323

Agarose III

Molecular biology

Gel strength (1% Gel.)	**200-400gr/cm^2**	Sulfate (SO_4)	**max. 0.1%**
Electroendosmosis (-MR)	**0.05-0.14**	Residue after ignition	**max. 1%**
Gelling temperature (1.5% sol)	**max. 31°C**	DNase activity	**Not detected**
Melting temperature (1.5% sol)	**max. 66°C**	RNase activity	**Not detected**
Loss on drying (105°C)	**max. 10%**	Protease activity	**Not detected**

Allyl alcohol

Synonym: 2-Propen-1-ol

CAS [107-18-6]; EC 203-470-7; C_3H_6O; M 58.08

D 0.850; m.p. -129 °C; b.p. 97 °C; UN 1098,6.1+3,I,TF1

Danger H:225-301-311-315-319-331-335-400; P:301+310-303+361+353-305+351+338-361-405

Cat. No. 013002

Allyl alcohol

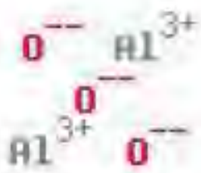
CP

Appearance	**Clear liquid**
Color (APHA)	**max. 20**
Density (20/4°C)	**0.850-0.854gr/ml**
Assay (GC, on anhydrous basis)	**min. 99%**

Aluminum oxide (gravitational), grade A -Natural, 50-200µm

Synonym: Alumina

CAS [1344-28-1]; EC 215-691-6; Al_2O_3; M 101.96



Cat. No. 270781

Aluminum oxide (gravitational), grade A -Natural, 50-200µm

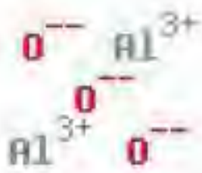
For chromatography

Appearance	**White solid**	Particle size	**50-200um**
Bulk density	**0.78-0.82gr/cc**	Loss on ignition	**1.3-2.1%**
Specific surface area	**147-153m^2/gr**	pH (10% in Water)	**7-7.5**

Aluminum oxide (gravitational), grade A-Acidic, 50-200µm

Synonym: Alumina

CAS [1344-28-1]; EC 215-691-6; Al_2O_3; M 101.96



Cat. No. 270681

Aluminum oxide (gravitational), grade A-Acidic, 50-200µm

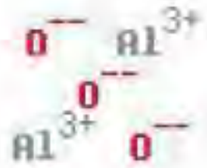
For chromatography

Appearance	**White to off-white solid**
pH (10% in Water)	**3.5-4.5**
Particle size	**Complies**

Aluminum oxide (gravitational), grade A-Basic, 50-200µm

Synonym: Alumina

CAS [1344-28-1]; EC 215-691-6; Al_2O_3; M 101.96



Cat. No. 011081

Aluminum oxide (gravitational), grade A-Basic, 50-200µm

For chromatography

Appearance	**White to off white solid**
pH (10% in Water)	**9-11**
Particle size	**Complies**

Aluminum oxide activated <10µm

Synonym: Alumina

CAS [1344-28-1]; EC 215-691-6; Al_2O_3; M 101.96

Cat. No. 010881

Aluminum oxide activated <10µm

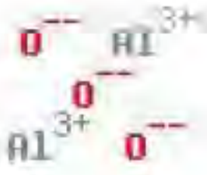
For chromatography

Appearance	**White to off white solid**
pH (10% in Water)	**7-9**
Particle size (average)	**max. 10um**
Purity (trace metal analysis)	**min. 99.5%**

Aluminum oxide natural 0.05-0.15mm

Synonym: Alumina

CAS [1344-28-1]; EC 215-691-6; Al_2O_3; M 101.96



Cat. No. 272081

Aluminum oxide natural 0.05-0.15mm

For chromatography

Appearance	**White to off-white powder**
Particle size	**Conforms**
pH (10% in Water)	**6.5-7.5**

6-Amino-1-Hexanol

CAS [4048-33-3]; EC 223-748-1; $C_6H_{15}NO$; M 117.19

Cat. No. 216080

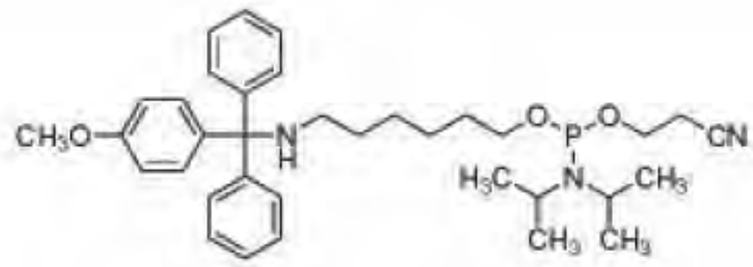
6-Amino-1-Hexanol

For synthesis

Appearance	**White to off-white solid**
Assay (GC, on anhydrous basis)	**min. 97%**
Water (KF)	**max. 0.5%w/w**

5'-Amino-Modifier C6

CAS [114616-27-2]; $C_{35}H_{48}N_3O_3P$; M 589.76;



Cat. No. 173424

5'-Amino-Modifier C6

DNA synthesis

Assay (HPLC)	**min. 97%**
Solubility (0.1M in ACN)	**Complete, clear**

5'-Amino-Modifier C6 TFA

CAS [133975-85-6]; $C_{17}H_{31}F_3N_3O_3P$; M 413.42;

Warning; H:302-312-319-332; P:261-280-301+312-305+351+338-322

Cat. No. 173524

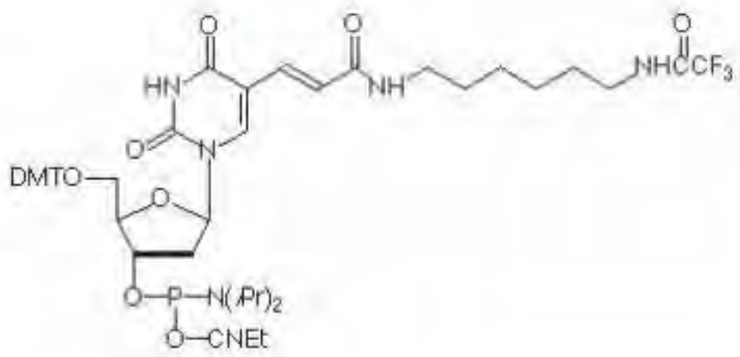
5'-Amino-Modifier C6 TFA

DNA synthesis

Assay (HPLC)	**min. 90%**
Solubility (0.1M in ACN)	**Complete, clear**

Amino-Modifier C6 dT

CAS [178925-21-8]; $C_{50}H_{62}N_5O_{10}F_3P$; M 995.05;



Warning; H:302-312-319-332; P:261-280-301+312-305+351+338-322

Cat. No. 175624

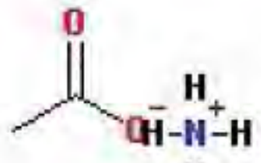
Amino-Modifier C6 dT

DNA synthesis

Appearance	**White to off-white solid**
Assay (HPLC)	**min. 98%**
Solubility (0.1M in ACN)	**Complete, clear**
NMR H^1 spectrum	**Conforms to structure**

Ammonium acetate

CAS [631-61-8]; EC 211-162-9; $C_2H_7NO_2$; M 77.08



Cat. No. 012406

Ammonium acetate

HPLC

Assay (T, dry)	**98-102%w/w**	A280nm (10%)	**max. 0.01AU**
Water (KF)	**max. 3%w/w**	pH (1M in water)	**6.0-8.0**
A250nm (10%)	**max. 0.04AU**	Filter test (1M in Water)	**Passes test**
A260nm (10%)	**max. 0.02AU**		

Cat. No. 012441

Ammonium acetate

ULC/MS - CC/SFC

Assay (T, dry)	**99.0-101.0%w/w**	Al (Aluminum)	**max. 1ppm**
Water (KF)	**max. 1%w/w**	Ca (Calcium)	**max. 5ppm**
Grad. elution H.Peak at 254nm	**max. 0.002AU**	Cu (Copper)	**max. 1ppm**
Grad. elution drift at 254nm	**max. 0.010AU**	Fe (Iron)	**max. 1ppm**
F254nm (0.1%, as Quinine)	**max. 0.5ppb**	K (Potassium)	**max. 5ppm**
F365nm (0.1%, as Quinine)	**max. 0.5ppb**	Li (Lithium)	**max. 1ppm**
MS-ESI+ (0.1%, as Reserpine)	**max. 30ppb**	Mg (Magnesium)	**max. 1ppm**
T250nm (1M)	**min. 93%**	Na (Sodium)	**max. 5ppm**
T260nm (1M)	**min. 96%**	Ni (Nickel)	**max. 1ppm**
T280nm (1M)	**min. 98%**	Pb (Lead)	**max. 1ppm**
A250nm (10%)	**max. 0.03AU**	Zn (Zinc)	**max. 1ppm**
A260nm (10%)	**max. 0.02AU**	Appearance of solution (1M in Water)	**Complete, colorless solution**
A280nm (10%)	**max. 0.01AU**	Filter test (1M in Water)	**Passes test**
Chloride (Cl)	**max. 0.0005%**	pH (1M in water)	**6.0-7.5**
Sulfate (SO_4)	**max. 0.001%**		

Filtered through 0.1µm, before final crystallization.

Cat. No. 012478

Ammonium acetate

LC-MS

Assay (T, dry)	**98.0-101.0%w/w**	Cu (Copper)	**max. 1ppm**
Water (KF)	**max. 2%w/w**	Fe (Iron)	**max. 1ppm**
Grad. elution H.Peak at 254nm	**max. 0.004AU**	K (Potassium)	**max. 5ppm**
F254nm (0.1%, as Quinine)	**max. 1.0ppb**	Li (Lithium)	**max. 1ppm**
F365nm (0.1%, as Quinine)	**max. 1.0ppb**	Mg (Magnesium)	**max. 1ppm**
MS-ESI+ (0.1%, as Reserpine)	**max. 50ppb**	Na (Sodium)	**max. 5ppm**
T260nm (1M)	**min. 95%**	Ni (Nickel)	**max. 1ppm**
T280nm (1M)	**min. 97%**	Pb (Lead)	**max. 1ppm**
Chloride (Cl)	**max. 0.001%**	Zn (Zinc)	**max. 1ppm**
Sulfate (SO_4)	**max. 0.002%**	Appearance of solution (1M in Water)	**Clear colorless solution**
Al (Aluminum)	**max. 1ppm**	Filter test (1M in Water)	**Passes test**
Ca (Calcium)	**max. 5ppm**	pH (1M in water)	**5.5-7.5**

Cat. No. 012405

Ammonium acetate

AR

Appearance	**White crystalline mater**	Nitrate (NO_3)	**max. 0.001%**
Assay (T, dry)	**98-102%w/w**	Sulfate (SO_4) pH	**max. 0.001%**
Chloride (Cl)	**max. 0.0005%**	(5% in water)	**6.7-7.3**
Heavy metals (as Pb)	**max. 0.0005%**	Residue after ignition	**max. 0.01%**
Iron (Fe)	**max. 0.0005%**	Water insolubles	**max. 0.005%**

Cat. No. 012423

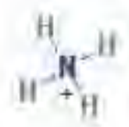
Ammonium acetate

Molecular biology

Application: Ammonium acetate aqueous solution may be used, typically, at a concentration of 10M in ethanol for DNA precipitation from polymerase chain reaction (PCR).

Assay (T)	**98-102%w/w**	pH (5% in water)	**6.5-7.5**
Chloride (Cl)	**max. 0.0005%**	Water insolubles	**max. 0.002%**
Heavy metals (as Pb)	**max. 0.0005%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.0005%**	RNase activity	**Not detected**
Nitrate (NO_3)	**max. 0.001%**	Protease activity	**Not detected**
Sulfate (SO_4)	**max. 0.001%**	A280nm (1M)	**max. 0.01AU**

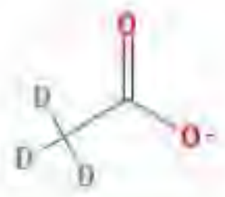
Ammonium acetate-d3, 99Atom%D



CAS [20515-38-2]; $C_2H_1D_3NO_2$; M 80.10;

Cat. No. 302295 ***Ammonium acetate-d3, 99Atom%D***

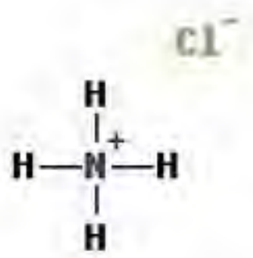
For NMR



Enrichment (NMR)	**min. 99Atom%D**

Ammonium chloride

CAS [12125-02-9]; EC 235-186-4; ClH_4N; M 53.49



Warning; H:302-319; P:264-280-301+312-305+351+338-337+313

Cat. No. 012605 ***Ammonium chloride***

AR

Appearance	**White crystalline powder**	Calcium (Ca)	**max. 0.001%**
Assay	**99.5-100.5%**	Phosphate (PO_4)	**max. 0.0002%**
Iron (Fe)	**max. 0.0002%**	Residue after ignition	**max. 0.01%**
Sulfate (SO_4)	**max. 0.002%**	pH (5% in water)	**4.5-5.5**
Heavy metals (as Pb)	**max. 0.0005%**	Insoluble matter	**max. 0.005%**

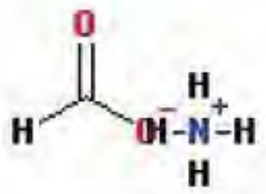
Cat. No. 012603 ***Ammonium chloride***

Meets EP/BP spec.

Identification A	**Passes EP/BP tests**	Iron (Fe)	**max. 0.002%**
Identification B	**Passes EP/BP tests**	Sulfate (SO_4)	**max. 0.015%**
Assay	**99-100.5%**	Loss on drying (105°C)	**max. 1%**
Bromides & Iodides	**Passes EP/BP test**	Sulphated ash	**max. 0.1%**
Calcium (Ca)	**max. 0.02%**	Acidity or Alkalinity	**Passes EP/BP test**
Heavy metals (as Pb)	**max. 0.001%**		

Ammonium formate

CAS [540-69-2]; EC 208-753-9; CH_5NO_2; M 63.05



Warning; H:315-319-335; P:261-280-305+351+338-321

Cat. No. 019841 ***Ammonium formate***

ULC/MS - CC/SFC

Assay (T, dry)	**99.0-100.5%w/w**	Chloride (Cl)	**max. 0.001%**
pH (1M in water)	**5.5-7.5**	Sulfate (SO_4)	**max. 0.005%**
MS-ESI+ (0.1%, as Reserpine)	**max. 30ppb**	Al (Aluminum)	**max. 1ppm**
Water (KF)	**max. 2%w/w**	Ca (Calcium)	**max. 5ppm**
Grad. elution H.Peak at 254nm	**max. 0.002AU**	Fe (Iron)	**max. 1ppm**
Grad. elution drift at 254nm	**max. 0.010AU**	K (Potassium)	**max. 5ppm**
F254nm (0.1%, as Quinine)	**max. 0.5ppb**	Mg (Magnesium)	**max. 1ppm**
F365nm (0.1%, as Quinine)	**max. 0.5ppb**	Na (Sodium)	**max. 5ppm**
T260nm (1M)	**min. 98%**		
T280nm (1M)	**min. 98%**		
Filter test (1M in Water)	**Passes test**		
Appearance of solution (1M in Water)	**Complete, colorless**		

Filtered through 0.1µm, before final crystallization.

Cat. No. 019878

Ammonium formate

LC-MS

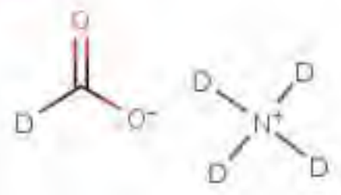
Assay (T, dry)	**98.0-101.0%w/w**
pH (1M in water)	**5.5-7.5**
Filter test (1M in Water)	**Passes test**
Appearance of solution (1M in Water)	**Clear colorless solution**
Water (KF)	**max. 3%w/w**
Grad. elution H.Peak at 254nm	**max. 0.006AU**
MS-ESI+ (0.1%, as Reserpine)	**max. 50ppb**
T260nm (1M)	**min. 90%**
T280nm (1M)	**min. 95%**

Chloride (Cl)	**max. 0.005%**
Sulfate (SO_4)	**max. 0.005%**
Al (Aluminum)	**max. 0.0005%**
Ca (Calcium)	**max. 0.001%**
Fe (Iron)	**max. 0.0005%**
K (Potassium)	**max. 0.001%**
Mg (Magnesium)	**max. 0.0005%**
Na (Sodium)	**max. 0.001%**

Filtered through 0.2µm, before final crystallization.

Ammonium-d4 formate-d, 98 atom%D

CAS [65387-23-7]; CD_5NO_2; M 68.06;



Warning; H:315-319-335; P:261-280-305+351+338-405-501

Cat. No. 302395

Ammonium-d4 formate-d, 98 atom%D

For NMR

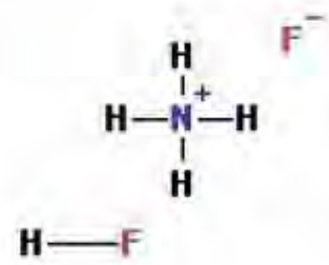
Enrichment (NMR)	**min. 98Atom%D**

Ammonium hydrogen difluoride

Synonym: Ammonium bifluoride

CAS [1341-49-7]; EC 215-676-4; NH_4HF_2; M 57.04

m.p. 125 °C; b.p. 230 °C; UN 1727,8 (6.1),II,CT2;



Danger H:301-314; P:301+310-303+361+353-305+351+338-310

Cat. No. 011199

Ammonium hydrogen difluoride

General reagent

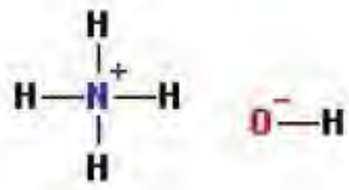
Assay (T)	**min. 95%w/w**
Water (KF)	**max. 1%w/w**

Ammonium hydroxide solution

Synonym: Ammonia solution

CAS [1336-21-6]; EC 215-647-6; H_5NO; M 35.05

D 0.910; m.p. -57 °C; b.p. 38 °C; UN 2672,8,III,C5



Danger H:314-335-336-400; P:260-303+361+353-305+351+338-310

Cat. No. 012510

Ammonium hydroxide solution

MOS

Appearance	**Clear colorless liquid**
Arsenic (As)	**max. 0.0003%**
Color (APHA)	**max. 5**
Chloride (Cl)	**max. 0.00005%**
Copper (Cu)	**max. 0.00001%**
Iron (Fe)	**max. 0.00001%**

Heavy metals (as Pb)	**max. 0.00005%**
Phosphate (PO_4) Residue	**max. 0.00004%**
after evaporation Sulfate	**max. 0.001%w/w**
(SO_4)	**max. 0.0001%**
Assay (T)	**25-30%w/w**
Nickel (Ni)	**max. 0.00001%**

Cat. No. 012505

Ammonium hydroxide solution

AR

Appearance	**Clear colorless liquid**	Phosphate (PO_4)	**max. 2ppm**
Color (APHA)	**max. 10**	Nitrate (NO_3)	**max. 2ppm**
Assay (T)	**24-30%w/w**	Sulfate (SO_4)	**max. 2ppm**
Subs. reducing $KMnO_4$	**Passes test**	Heavy metals (as Pb)	**max. 0.5ppm**
Carbon Dioxide	**max. 0.002%**	Iron (Fe)	**max. 0.2ppm**
Chloride (Cl)	**max. 0.5ppm**	Residue after ignition	**max. 0.002%**

Cat. No. 012503

Ammonium hydroxide solution

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Chloride (Cl)	**max. 1ppm**
Identification B	**Passes EP/BP test**	Heavy metals (as Pb)	**max. 1ppm**
Identification C	**Passes EP/BP test**	Iron (Fe)	**max. 0.25ppm**
Appearance	**Clear colorless liquid**	Sulfate (SO_4)	**max. 5ppm**
Assay (at filling)	**25.0-30.0%w/w**	Oxidisable substances	**Passes EP/BP test**
Appearance of solution	**Clear colorless solution**	A252nm (Pyridine & related subst.)	**max. 0.06AU**
Carbonate (CO_3)	**max. 0.006%w/v**	Residue after evaporation	**max. 0.002%w/v**

Cat. No. 012524

Ammonium hydroxide solution

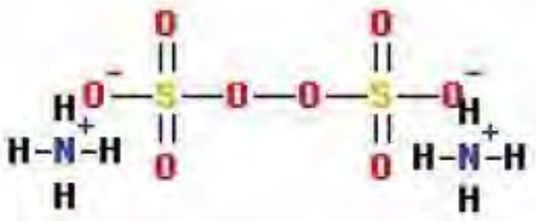
DNA synthesis

Appearance	**Clear colorless liquid**	Assay (T)	**24-30%w/w**
Color (APHA)	**max. 10**	A260nm (1M)	**max. 0.02AU**
Residue after evaporation	**max. 0.001%w/w**	A280nm (1M)	**max. 0.02AU**
Subs. reducing $KMnO_4$	**Passes test**		

■ Ammonium persulfate

Synonym: *APS, Ammonium peroxodisulfate, Ammonium peroxydisulfate*

CAS [7727-54-0]; EC 231-786-5; $H_8N_2O_8S_2$; M 228.20



Danger H:272-302-315-317-319-334-335; P:210-221-285-305+351+338

Cat. No. 010905

Ammonium persulfate

AR

Appearance	**White to pale yellow solid**	Iron (Fe)	**max. 0.001%**
Assay	**min. 98%w/w**	Chloride & Chlorates	**max. 0.001%**
Acidity	**max. 0.04meq/gr**	Insoluble matter	**max. 0.005%**
Heavy metals (as Pb)	**max. 0.005%**	Residue after ignition	**max. 0.05%**

Cat. No. 010923

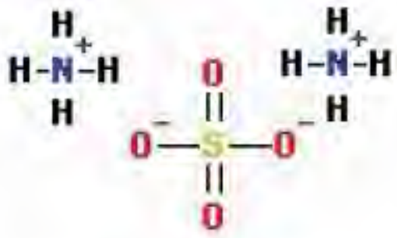
Ammonium persulfate

Molecular biology

Application: Catalyst for acrylamide gel polymerization.Generally used in conjunction with TEMED.

Appearance	**White to pale yellow solid**	Chloride & Chlorates	**max. 0.002%**
Assay	**min. 98%w/w**	Sulphated ash	**max. 0.1%**
Acidity at bottling (as H_2SO_4)	**max. 0.2%**	DNase activity	**Not detected**
pH (5% in water)	**1-4**	RNase activity	**Not detected**
Iron (Fe)	**max. 0.001%**	Protease activity	**Not detected**
Heavy metals (as Pb)	**max. 0.005%**		

Ammonium sulfate



CAS [7783-20-2]; EC 231-984-1; $H_8N_2O_4S$; M 132.13

Warning; H:315-319-335; P:261-280-305+351+338-321

Cat. No. 012305

Ammonium sulfate

AR

Appearance	**White to off-white solid**	Iron (Fe)	**max. 0.0005%**
Assay (T)	**min. 99.5%w/w**	Nitrate (NO_3)	**max. 0.001%**
pH (5% in water)	**5.0-6.0**	Phosphate (PO_4)	**max. 0.0005%**
Chloride (Cl)	**max. 0.0005%**	Residue after ignition	**max. 0.005%**
Heavy metals (as Pb)	**max. 0.0005%**		

Cat. No. 012323

Ammonium sulfate

Molecular biology

Application: Commonly used for the purification of proteins and antibodies. Useful for conjugation of enzymes to antibodies, and for crystallographic analysis of nucleic acids and proteins.

Appearance	**White crystalline powder**	Assay (T)	**min. 99%w/w**
Iron (Fe)	**max. 0.0005%**	DNase activity	**Not detected**
Water insolubles	**max. 0.005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
pH (5% in water)	**5-6**		

Cat. No. 012302

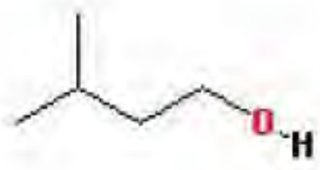
Ammonium sulfate

CP

Appearance	**White crystalline powder**
pH (5% in water)	**4.5-6.0**
Residue after ignition	**max. 0.1%**
Assay (T)	**min. 99%w/w**

Iso-Amyl alcohol

Synonym: *3-Methyl-1-butanol, Isopentyl alcohol*



CAS [123-51-3]; EC 204-633-5; $C_5H_{12}O$; M 88.15

D 0.81; m.p. -117 °C; b.p. 130 °C; UN 1105,3,III,F1

Warning; H:226-332-335; EUH:066; P:210-241-261-280-303+361+353

Cat. No. 090205

Iso-Amyl alcohol

AR

Assay (GC, on anhydrous basis)	**min. 99%**	Acidity (as Acetic acid)	**max. 0.003%**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.002%w/w**
Acids & Esters	**max. 0.2%**	Water (KF)	**max. 0.5%w/w**

Cat. No. 090223

Iso-Amyl alcohol

Molecular biology

Application: Commonly used as co-solvent in nucleic acid isolation and purification.

Acidity (as Acetic acid)	**max. 0.003%**	Water (KF)	**max. 0.5%w/w**
Color (APHA)	**max. 10**	Zinc (Zn)	**max. 0.00001%**
Assay (GC, on anhydrous basis)	**min. 99%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.00001%**	RNase activity	**Not detected**
Residue after evaporation	**max. 0.002%w/w**	Protease activity	**Not detected**

Cat. No. 090202 ***Iso-Amyl alcohol*** ***CP***

Assay (GC, on anhydrous basis)	**min. 99%**
Water (KF)	**max. 0.5%w/w**

Iso-Amyl alcohol according to Gerber

D 0.81; UN 1105,3,III,F1;

Warning; H:226-302; P:210-240-241-280-303+361+353

Cat. No. 090523 ***Iso-Amyl alcohol according to Gerber*** ***Molecular biology***

Appearance	**Clear liquid**	Organic Impurities	**Passes test**
Color (APHA)	**max. 15**	2-Furaldehyde	**Passes test**
2-Methyl-1-Butanol	**8-10%**	Water (KF)	**max. 0.2%w/w**
3-Methyl-1-Butanol	**90-92%**	Residue after evaporation	**max. 0.005%w/w**
Assay (Total Isomers)	**min. 98%**	Density (20/4°C)	**0.808-0.818gr/ml**

n-Amyl alcohol

Synonym: 1-Pentanol, n-Amyl alcohol, Pentyl alcohol

CAS [71-41-0]; EC 200-752-1; $C_5H_{12}O$; M 88.15

D 0.811; m.p. -78 °C; b.p. 137-139 °C; UN 1105,3,III,F1

Warning; H:226-315-332-335; P:210-241-303+361+353-321

Cat. No. 011605 ***n-Amyl alcohol*** ***AR***

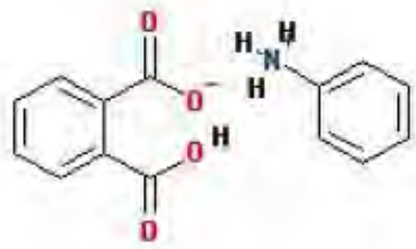
Appearance	**Clear liquid**	Water (KF)	**max. 0.5%w/w**
Color (APHA)	**max. 30**	Residue after evaporation	**max. 0.003%w/w**
Assay (GC, on anhydrous basis)	**min. 98.0%**	Pentanoic aldehyde (GC)	**max. 0.5%**
Acids & Esters	**max. 1.0%**		

Cat. No. 011651 ***n-Amyl alcohol*** ***AR-S glass distilled***

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Color (APHA)	**max. 15**	Co (Cobalt)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.0%**	Cr (Chromium)	**max. 0.02ppm**
Acids & Esters	**max. 1.0%**	Cu (Copper)	**max. 0.02ppm**
Water (KF)	**max. 0.2%w/w**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Pentanoic aldehyde (GC)	**max. 0.5%**	Mn (Manganese)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Ni (Nickel)	**max. 0.02ppm**
B (Boron)	**max. 0.02ppm**	Pb (Lead)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**

Aniline phthalate reagent for TLC

CAS [50930-79-5]; EC 256-856-2; UN 1950,2.1 (6.1),III,5TF;



Cat. No. 010418

Aniline phthalate reagent for TLC

Spray for TLC

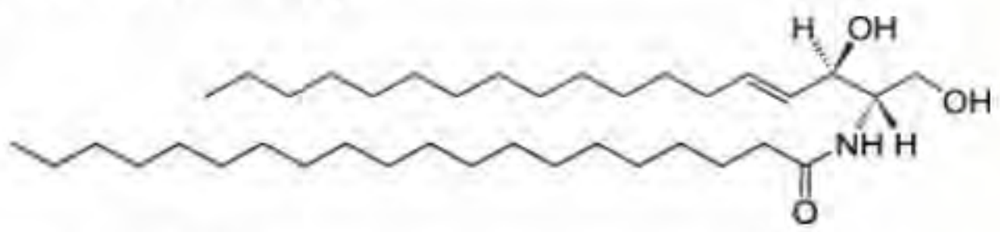
Performance of spray	**Passes test**
Reagent suitability	**Conform**

TLC SPRAY REAGENT

N-Arachidoyl-D-erythro-Sphingosine (C20 Ceramide)

Synonym: *Ceramide C20: N-(eicosanoyl)-sphing-4-enine.*

CAS [123482-93-9]; $C_{38}H_{75}NO_3$; M 593.58;



Cat. No. 039780

N-Arachidoyl-D-erythro-Sphingosine (C20 Ceramide)

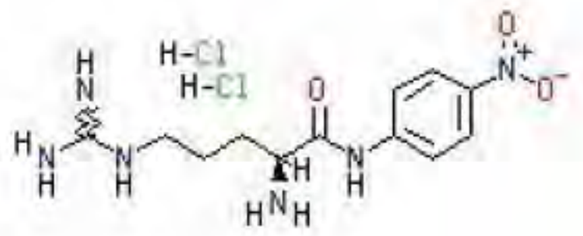
For synthesis

Appearance	**White to-off white solid**	NMR H^1 spectrum	**Conforms to structure**
Assay (HPLC)	**min. 98%**	MS Spectra	**Conforms to structure**
Purity (TLC)	**min. 98%**		

L-Arginine-p-Nitroanilide dihydrochloride

Synonym: *H-ARG-PNA 2HCL*

CAS [40127-11-5]; $C_{12}H_{18}N_6O_3 \times 2HCl$; M 367.23;



Cat. No. 274033

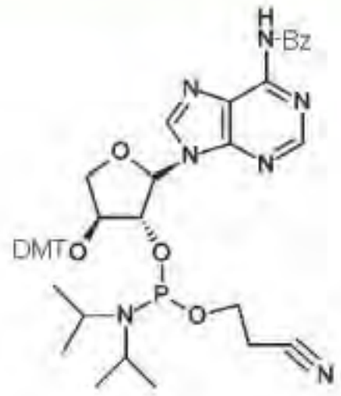
L-Arginine-p-Nitroanilide dihydrochloride

Peptide synthesis

Appearance	**Solid**
Assay (T, argen.)	**97.5-102.5%w/w**
Purity (HPLC)	**min. 98%**
S.Rotation 20/D (C=1 in Water)	**70.0-74.0°**

A-TNA Phosphoramidite

$C_{40}H_{50}N_5O_8P$; M 759.8;



Cat. No. 459024

A-TNA Phosphoramidite

DNA synthesis

Appearance	**White to off-white solid**	NMR P^{31} spectrum	**Complies with structure**
Assay (HPLC)	**min. 95%**	Solubility (0.1M in ACN)	**Complete, clear**
NMR H^1 spectrum	**Complies with structure**		

Barium hydroxide octahydrate

CAS [12230-71-6]; $H_2BaO_2x8H_2O$; M 315.48; UN 2923,8 (6.1),III,CT2

Cat. No. 026899

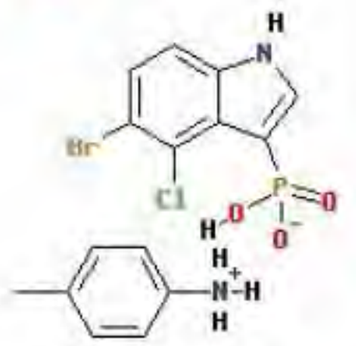
Barium hydroxide octahydrate

General reagent

Appearance	**Colorless crystals**
Assay (T)	**min. 98%w/w**

BCIP®, p-Toluidine salt

Synonym: *5-Bromo-4-chloro-3-indolyl phosphate p-toluidine salt*



CAS [6578-06-9]; EC 229-506-1; $C_8H_6BrClNO_4PC_7H_9N$; M 433.64

Warning; H:302-312-332; P:261-280-301+312-304+340-322

Cat. No. 023123

BCIP®, p-Toluidine salt

Molecular biology

Application: Commonly used in the colorimetric detection of Alkaline Phosphatase in conjunction with Nitro Blue Tetrazolium (NBT). The BCIP/NBT substrate system is also suitble for use in immunohistochemistry, immunoblot staining, and ELISA applications

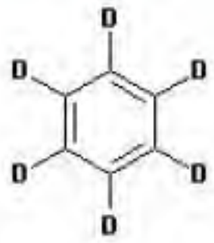
Solubility (2% in DMF)	**Clear colorless solution**	RNase activity	**Not detected**
Assay (UV)	**min. 99%**	Protease activity	**Not detected**
DNase activity	**Not detected**		

Benzene-d6, 100 atom%D

CAS [1076-43-3]; EC 214-061-8; C_6D_6; M 84.16

D 0.95; m.p. 7°C; b.p. 79°C; UN 1114,3,II,F1

Danger H:225-301-311-330-350; P:210-301+310-303+361+353-405-501



Cat. No. 302695

Benzene-d6, 100 atom%D

For NMR

Enrichment (NMR)	**min. 99.95Atom%D**
Water (KF)	**max. 0.01% H_2O+D_2O**

Benzene-d6, 99.8 atom%D

CAS [1076-43-3]; EC 214-061-8; C_6D_6; M 84.16

D 0.95; m.p. 7°C; b.p. 79°C; UN 1114,3,II,F1

Danger H:225-301-311-330-350; P:210-301+310-303+361+353-405-501

Cat. No. 302595

Benzene-d6, 99.8 atom%D

For NMR

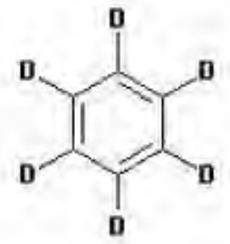
Enrichment (NMR)	**min. 99.8Atom%D**
Water (KF)	**max. 0.02% H_2O+D_2O**

Benzene-d6, 99.5 atom%D

CAS [1076-43-3]; EC 214-061-8; C_6D_6; M 84.16

D 0.95; m.p. 7°C; b.p. 79°C; UN 1114,3,II,F1

Danger H:225-301-311-330-350; P:210-301+310-303+361+353-405-501



Cat. No. 302495

Benzene-d6, 99.5 atom%D

For NMR

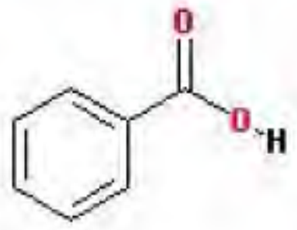
Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.03% H_2O+D_2O**

Benzoic acid

Synonym: Phenylformic acid, Benzene carboxylic acid

CAS [65-85-0]; EC 200-618-2; $C_7H_6O_2$; M 22.12

Danger H:315-318-372; P:260-280-305+351+338-310-501



Cat. No. 035805

Benzoic acid

AR

Appearance	**Colorless to white soild**	Chlorinated compounds	**max. 0.005%**
Assay (T)	**99.5-100.5%w/w**	Heavy metals (as Pb)	**max. 0.0005%**
Residue after ignition	**max. 0.005%**	Subs. reducing $KMnO_4$	**Passes ACS test**
Insolubles in MeOH	**max. 0.005%**		

Cat. No. 035848

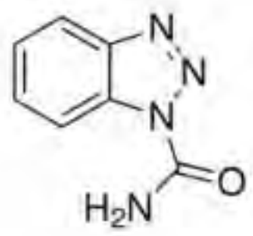
Benzoic acid

HYDROQUANT for Karl Fischer analysis

Application: Neutralizing acid for strong basic samples.

Appearance	**Colorless or white solid**
Assay (T)	**min. 99.0%w/w**
Melting point	**121-124°C**
Loss on drying (105°C)	**max. 0.3%**

Benzotriazole-1-carboxamidinium tosylate



CAS [163853-10-9]; $C_{14}H_{14}N_5O_3S$; M 332.35;

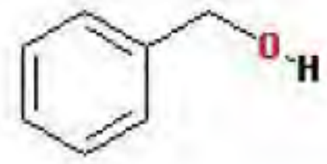
Cat. No. 025780

Benzotriazole-1-carboxamidinium tosylate

For synthesis

Appearance	**White crystalline powder**	Assay (T)	**min. 99%w/w**
Loss on drying (105°C)	**max. 0.3%**	Purity (HPLC)	**min. 99.2%**
Melting point	**190-195°C**	Solubility (6% in methanol)	**Clear colorless solution**

Benzyl alcohol



Synonym: *Benzenemethanol*

CAS [100-51-6]; EC 202-859-9; C_7H_8O; M 108.14

D 1.044; m.p. -15 °C; b.p. 205 °C;

Warning; H:302-332; P:261-264-301+312-304+340-312

Cat. No. 022475 ***Benzyl alcohol*** ***Headspace***

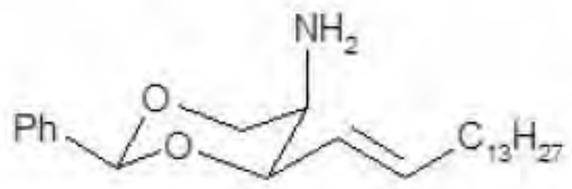
Appearance	**Clear colorless liquid**	Headspace test for O.V.I.	**Passes test**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Benzaldehyde content (on botteling)	**max. 0.01%**
Refractive index (20/D)	**1.538-1.540**	Toluene	**max. 1ppm**
Water (KF)	**max. 0.02%w/w**		

Cat. No. 022405 ***Benzyl alcohol*** ***AR***

Color (APHA)	**max. 10**	Acidity (as Benzoic acid)	**max. 0.01%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Water (KF)	**max. 0.1%w/w**
Benzaldehyde content (on botteling)	**max. 0.01%**	Alkalinity (as Ammonia)	**max. 0.002%**
Acetophenone	**max. 0.02%**	Residue after ignition	**max. 0.005%**
Peroxides (as H_2O_2)	**max. 0.001%**		

1,3-Benzylidene-D-erythro-Sphingosine

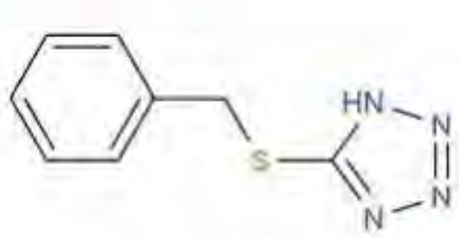
$C_{25}H_{41}NO_2$; M 387.6;



Cat. No. 234380 ***1.3-Benzylidene-D-erythro-Sphingosine*** ***For synthesis***

Appearance	**White to off-white solid**
Water (KF)	**max. 2%w/w**
Purity (TLC)	**min. 98%**
NMR H^1 spectrum	**Conforms to structure**

5-(Benzylthio)-1H-Tetrazole



Synonym: *BTT*

CAS [21871-47-6]; $C_8H_8N_4S$; M 192.24;

Danger H:315-318-335; P:261-305+351+338-310-321-405

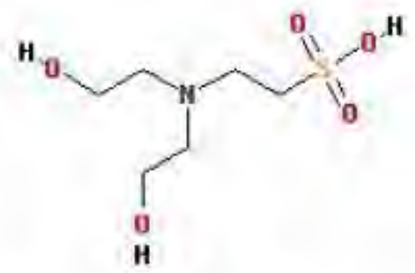
Cat. No. 027024 ***5-(Benzylthio)-1H-Tetrazole*** ***DNA synthesis***

Appearance	**White crystalline powder**	Assay (T)	**99.5-100.5%w/w**
Solubility (0.25M in ACN)	**Clear colorless solution**	Purity of BTT (HPLC)	**min. 99.8%**
Water (KF)	**max. 0.1%w/w**		

BES free Acid

Synonym: *N,N-Bis(2-hydroxyethyl)-2-aminoethanesulfonic acid, N,N-Bis(2-hydroxyethyl)tauri*

CAS [10191-18-1]; EC 233-465-5; $C_6H_{15}NO_5S$; M 213.25



Warning; H:315-319-335; P:261-280-305+351+338-321

Cat. No. 023223

BES free Acid

Molecular biology

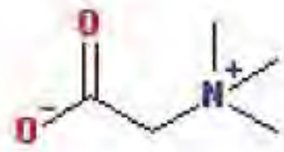
Application: Commonly used for preparation of buffered saline for transfection of DNA into mammalian cells. pKa =7.1 at 25°C; useful pH range 6.4 - 7.8.

Appearance	**White powder**	A260nm (10%)	**max. 0.1AU**
Solubility (10% in Water)	**Clear colorless solution**	A280nm (10%)	**max. 0.1AU**
Loss on drying (105°C)	**max. 0.5%**	DNase activity	**Not detected**
pH (10% in Water)	**3.5-5**	RNase activity	**Not detected**
Assay (T)	**min. 99%w/w**	Protease activity	**Not detected**

Betaine 5M

Synonym: *(Carboxymethyl)trimethylammonium inner salt, Oxyneurine*

CAS [107-43-7]; $C_5H_{11}NO_2$; M 117.15;



Warning; H:302; P:264-270-301+312-330

Cat. No. 026557

Betaine 5M

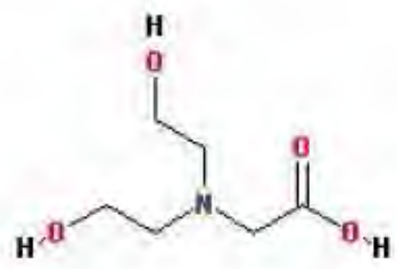
PCR reagent

Appearance	**Clear solution**	RNase activity	**Not detected**
Assay (T)	**4.8-5.2M**	Protease activity	**Not detected**
DNase activity	**Not detected**		

Bicine

Synonym: *N,N-Bis(2-hydroxyethyl)glycine*

CAS [150-25-4]; EC 205-755-1; $C_6H_{13}NO_4$; M 163.17



Cat. No. 023323

Bicine

Molecular biology

Application: Commonly used as buffering substance useful at pH range 7.6 - 9.0, pKa = 8.26 at 25°C.

Appearance	**White powder**	A260nm (1M)	**max. 0.1AU**
Solubility (1M in water)	**Clear colorless solution**	A280nm (1M)	**max. 0.1AU**
Loss on drying (105°C)	**max. 0.5%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
pH (1M in water)	**3.5-5**	Protease activity	**Not detected**
Assay (T)	**min. 98.5%w/w**		

Biophenol/Chloroform/Isoamyl alcohol, 25:24:1, 3-Part kit

Composition: *Part A - Biophenol / Chloroform / Isoamyl alcohol, 25:24:1; Part B- TE Buffer 0.5M; Part C - Hydroxyquinoline stabilizer.*

CAS [136112-00-0]; D 1.28; UN 2810,6.1,III,T1;

Danger H:225-302-311-314-331-341-351-373; P:103-303+361+353-305+351+338-310-361-405

Cat. No. 168823

Biophenol/Chloroform/Isoamyl alcohol, 25:24:1, 3-Part kit

Molecular biology

Application: This mixture is commonly used for extracting protein from crude nucleic acid preparations.

Appearance - Part A	**Clear colorless liquid**	Purity of Isoamylalcohol	**min. 99%**
Color (APHA) - Part A	**max. 10**	Appearance - Part B	**Clear colorless liquid**
Composition (GC) - Part A	**Complies**	Purity of H. Quinoline - Part C	**min. 99%**
Iron (Fe) - Part A	**max. 0.0001%**	pH of reconstitute kit (25°C)	**7.8-8.2**
Heavy metals (as Pb) - Part A	**max. 0.0001%**	DNase activity	**Not detected**
Purity of Biophenol	**min. 99.8%**	RNase activity	**Not detected**
Purity of Chloroform	**min. 99.9%**	Protease activity	**Not detected**

Biophenol/Chloroform/Isoamyl alcohol, 25:24:1, 2-Part kit, unstabilized

CAS [136112-00-0]; D 1.28; UN 1992,3+6.1,II,FT1;

Danger H:225-302-311-314-331-341-351-373; P:303+361+353-305+351+338-310-361

Cat. No. 169823

Biophenol/Chloroform/Isoamyl alcohol, 25:24:1, 2-Part kit, unstabilized

Molecular biology

Application: This mixture is commonly used for extracting protein from crude nucleic acid preparations.

Appearance - Part A	**Clear solution**	Purity of Isoamylalcohol	**min. 99%**
Composition (GC) - Part A	**Complies**	Appearance - Part B	**Clear solution**
Iron (Fe) - Part A	**max. 0.0001%**	pH of reconstitute kit (25°C)	**7.8-8.2**
Heavy metals (as Pb) - Part A	**max. 0.0001%**	DNase activity	**Not detected**
Purity of Biophenol	**min. 99.8%**	RNase activity	**Not detected**
Purity of Chloroform	**min. 99.9%**	Protease activity	**Not detected**

Biophenol/Chloroform/Isoamyl alcohol, 25:24:1, stabilized

CAS [136112-00-0]; D 1.28; UN 2810,6.1,II,T1;

Danger H:225-302-311-314-331-341-350-373; P:103-303+361+353-305+351+338-310-361-405

Cat. No. 169723

Biophenol/Chloroform/Isoamyl alcohol, 25:24:1, stabilized

Molecular biology

Application: This mixture is commonly used for extracting protein from crude nucleic acid preparations.

Appearance	**Clear liquid**	Purity of Biophenol	**min. 99.8%**
Iron (Fe)	**max. 0.0001%**	Purity of Chloroform	**min. 99.9%**
Heavy metals (as Pb)	**max. 0.0001%**	Purity of Isoamylalcohol	**min. 99%**
pH	**7.8-8.2**	DNase activity	**Not detected**
Stabilizer (Hydroxyquinoline)	**0.08-0.12%**	RNase activity	**Not detected**
Solvent composition	**Complies**	Protease activity	**Not detected**

Biophenol saturated, Tris buffered pH 8, stabilized

CAS [108-95-2]; EC 203-632-7; C_6H_6O ; M 94.1

Danger H:302-312-314-331-341-373; P:260-303+361+353-305+351+338-310-405

Cat. No. 169123

Biophenol saturated, Tris buffered pH 8, stabilized

Molecular biology

Application: Commonly used For DNA extractions needing high pH.

Appearance	**Clear liquid**	Water (KF)	**25-32%w/v**
Iron (Fe)	**max. 0.0001%**	Purity of Biophenol	**min. 99.8%**
Heavy metals (as Pb)	**max. 0.0001%**	DNase activity	**Not detected**
pH	**7.8-8.2**	RNase activity	**Not detected**
Stabilizer (Hydroxyquinoline)	**0.08-0.12%**	Protease activity	**Not detected**

Biophenol/Tris saturated, 3-parts kit

Composition: *Part A - Biophenol / Tris pH=6.4-6.8; Part B- TE Buffer 1.0M; Part C - Hydroxyquinoline stabilizer.*

CAS [108-95-2]; EC 203-632-7; C_6H_6O; M 94.1

Danger H:302-312-314-331-341-373; P:260-303+361+353-305+351+338-310-405

Cat. No. 168723

Biophenol/Tris saturated, 3-parts kit

Molecular biology

Color (APHA) - Part A	**max. 10**	Purity of H. Quinoline - Part C	**min. 99%**
Appearance - Part A	**Clear colorless liquid**	pH of reconstitute kit (25°C)	**7.8-8.2**
Iron (Fe) - Part A	**max. 0.0001%**	DNase activity	**Not detected**
Heavy metals (as Pb) - Part A	**max. 0.0001%**	RNase activity	**Not detected**
Purity of Biophenol	**min. 99.8%**	Protease activity	**Not detected**
Appearance - Part B	**Clear colorless liquid**		

Biophenol/Tris saturated, 2-part kit

Composition: *Part A - Biophenol / Tris pH=6.4-6.8; Part B- TE Buffer 1.0M.*

CAS [108-95-2]; EC 203-632-7; C_6H_6O; M 94.1

Danger H:302-312-314-331-341-373; P:260-303+361+353-305+351+338-310-405

Cat. No. 169223

Biophenol/Tris saturated, 2-part kit

Molecular biology

Appearance - Part A	**Clear colorless liquid**	pH of reconstitute kit (25°C)	**7.8-8.2**
Iron (Fe) - Part A	**max. 0.0001%**	DNase activity	**Not detecte**
Heavy metals (as Pb) - Part A	**max. 0.0001%**	RNase activity	**Not detecte**
Purity of Biophenol	**min. 99.8%**	Protease activity	**Not detecte**
Appearance - Part B	**Clear colorless liquid**		

See also Phenol, p. 272

Biophenol water saturated, stabilized

Synonym: *Phenol, Hydroxybenzene*

CAS [108-95-2]; EC 203-632-7; C_6H_6O ; M 94.04

Danger H:301-311-314-331-341-350-373; P:301+310-303+361+353-305+351+338-310-361

Cat. No. 169523

Biophenol water saturated, stabilized

Molecular biology

Appearance	**Clear liquid**	Purity of Biophenol	**min. 99.8%**
Iron (Fe)	**max. 0.0001%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0001%**	RNase activity	**Not detected**
Stabilizer (Hydroxyquinoline)	**0.08-0.12%**	Protease activity	**Not detected**
Water (KF)	**25-32%w/v**		

Biophenol water saturated

Synonym: *Phenol, Hydroxybenzene*

CAS [108-95-2]; EC 203-632-7; C_6H_6O ; M 94.041

Danger H:302-312-314-331-341-373; P:260-303+361+353-305+351+338-310-405

Cat. No. 169623

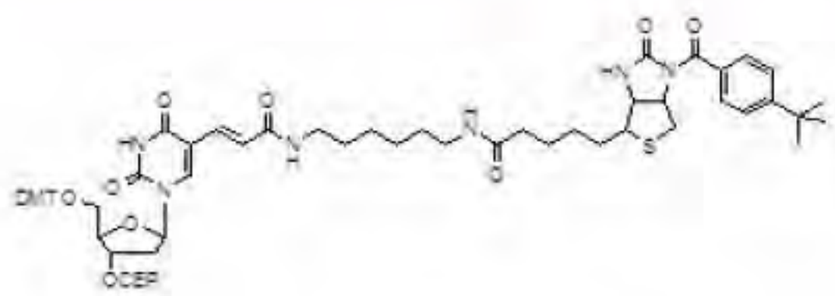
Biophenol water saturated

Molecular biology

Appearance	**Clear colorless liquid**	Purity of Biophenol	**min. 99.8%**
Iron (Fe)	**max. 0.0001%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0001%**	RNase activity	**Not detected**
Water (KF)	**25-32%w/v**	Protease activity	**Not detected**

Biotin dT

$C_{89}H_{89}N_8O_{12}PS$; M 1285.55;



Cat. No. 182524

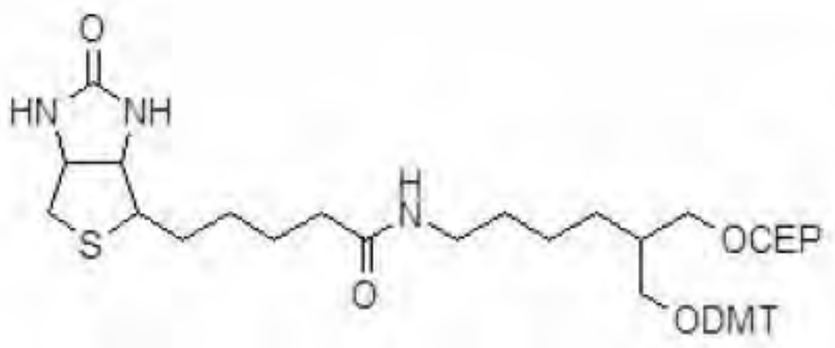
Biotin dT

DNA synthesis

Appearance	**White to pale yellow solid**	NMR P^{31} spectrum	**Conforms to structure**
Identity (HPLC)	**Conforms**	Solubility (0.1M in ACN)	**Complete, clear**
Assay (HPLC)	**min. 90%**		

Biotin Phosphoramidite

CAS [147190-34-9]; $C_{47}H_{66}N_5O_7PS$; M 876.10;



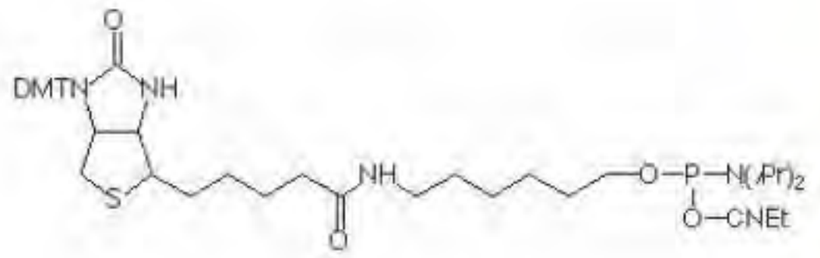
Cat. No. 175224

Biotin Phosphoramidite

DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 90%**
Solubility (0.1M in ACN)	**Complete, clear**

5'-Biotin Phosphoramidite



CAS [135137-87-0]; $C_{46}H_{64}N_5O_8PS$; M 846.08;

Warning; H:302-312-319-332; P:261-280-301+312-305+351+338-322

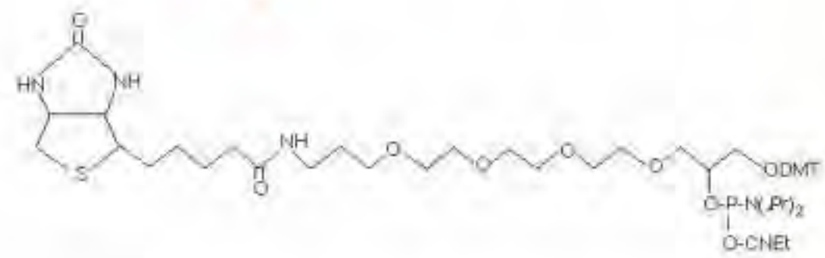
Cat. No. 174624

5'-Biotin Phosphoramidite

DNA synthesis

Appearance	**White to off-white solid**
Assay (HPLC)	**min. 95%**
Solubility (0.1M in ACN)	**Complete, clear**
NMR H^1 spectrum	**Conforms with structure**

Biotin-TEG Phosphoramidite



CAS [198080-44-3]; $C_{52}H_{76}N_5O_{11}PS$; M 1010.24;

Warning; H:302-312-319-332; P:261-280-301+312-305+351+338-322

Cat. No. 175324

Biotin-TEG Phosphoramidite

DNA synthesis

Appearance	**White to off-white solid**
Assay (HPLC)	**min. 90%**
Solubility (0.1M in ACN)	**Complete, clear**
NMR H^1 spectrum	**Conforms with structure**

BIO TRI RNA

D 1.06; UN 2810,6.1,II,T1;

Danger H:302-312-314-331-341-373; EUH:032; P:260-303+361+353-305+351+338-310-405

Cat. No. 901023

BIO TRI RNA

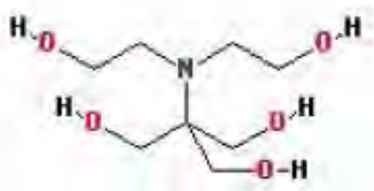
Molecular biology

Appearance	**Clear red solution**	RNA quality: OD 260/280	**1.8-2.1**
pH	**4.3-4.7**	RNA quality: OD 260/230	**0.7-3.3**
Density (20/4°C)	**1.05-1.07gr/ml**	RealTime PCR (GAPDH/HPRT1)	**Passes test**
RNA extraction quantity (cell-line)	**2-200Microgram**		

BIS-TRIS

Synonym: 2,2-Bis(hydroxymethyl)-2,2',2'-nitrilotriethanol, 2-Bis(2-hydroxyethyl)amino-2-(ymethyl) -1,3-propanediol, Bis(2-hydroxyethyl)amino-tris(hydroxymethyl)methane

CAS [6976-37-0]; EC 230-237-7; $C_8H_{19}NO_5$; M 209.24



Warning; H:315-319-335; P:261-280-305+351+338-321-405

Specification continues on the next page

Cat. No. 203223

BIS-TRIS

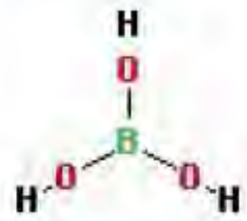
Molecular biology

Application: Commonly used as buffering substance useful at pH range 5.8 - 7.2, pKa = 6.50 at 25°C.

Appearance	**White powder**	Assay (T)	**min. 99%w/w**
Solubility (1M in water)	**Clear colorless solution**	A280nm (1M)	**max. 0.4AU**
Chloride (Cl)	**max. 0.005%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.0005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
pH (1M in water)	**9.5-11**		

Boric Acid

CAS [10043-35-3]; EC 233-139-2; H_3BO_3; M 61.83



Danger H:360FD; P:281-308+313

Cat. No. 020105

Boric Acid

AR

Appearance	**White solid**	Sulfate (SO_4)	**max. 0.05%**
Assay (T)	**99.5-100.5%w/w**	pH (3.3 % in water)	**3.8-4.8**
Iron (Fe)	**max. 0.001%**	Insolubles in MeOH	**max. 0.005%**
Heavy metals (as Pb)	**max. 0.001%**	Nonvolatiles with MeOH	**max. 0.005%**
Chloride (Cl)	**max. 0.001%**		

Cat. No. 020103

Boric Acid

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Organic matter	**Passes EP/BP test**
Identification B	**Passes EP/BP test**	Solubility in Alcohol	**Passes EP/BP test**
Appearance	**White to almost white solid**	Heavy metals (as Pb)	**max. 0.0015%**
		Sulfate (SO_4)	**max. 0.045%**
Assay (T)	**99.5-100.5%w/w**		
Appearance of solution	**Passes EP/BP test**		

Cat. No. 020123

Boric Acid

Molecular biology

Appearance	**White solid**	A280nm (0.1M)	**max. 0.02AU**
Iron (Fe)	**max. 0.001%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
pH (3.3 % in water)	**3.8-4.8**	Protease activity	**Not detected**
Assay (T, dry)	**99.5-100.5%w/w**		
A260nm (0.1M)	**max. 0.02AU**		

Cat. No. 020102

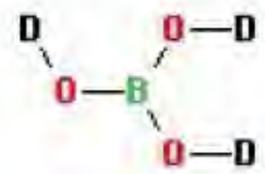
Boric Acid

CP

Appearance	**White solid**
pH (3.3 % in water)	**3.8-4.8**
Assay (T)	**99-101%w/w**

Boric acid-d3, 98 atom%D

CAS [14149-58-7]; D_3BO_3; M 64.86;



Danger H:360FD; P:201-202-280-308+313-405-501

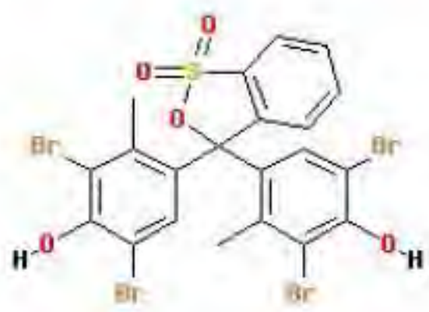
Cat. No. 302795 ***Boric acid-d3, 98 atom%D***

For NMR

Enrichment (NMR)	**min. 99.8Atom%D**

Bromocresol green reagent for TLC

CAS [76-60-8]; EC 200-972-8; $C_{21}H_{14}Br_4O_5S$; M 698.01



Danger H:222-319-336-340-350; P:210-251-305+351+338-405-410+412

Cat. No. 023018 ***Bromocresol green reagent for TLC***

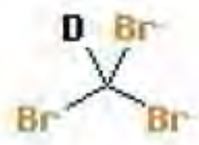
Spray for TLC

Performance of spray	**Passes test**
Reagent suitability	**Conform**

Bromoform-d, 99.5 atom%D

CAS [2909-52-6]; EC 220-823-0; $DCBr_3$; M 253.73

D 2.91; m.p. 8 °C; b.p. 136.5 °C; UN 2515,6.1,III,T1



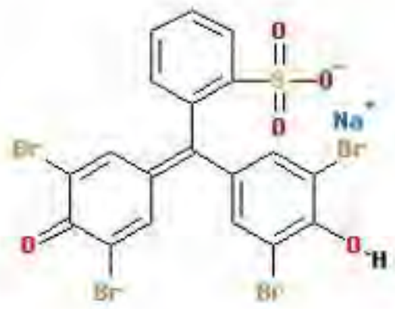
Danger H:315-319-330; P:260-305+351+338-310-405-501

Cat. No. 302895 ***Bromoform-d, 99.5 atom%D***

For NMR

Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.03% H_2O+D_2O**

Bromophenol blue sodium salt



CAS [34725-61-6]; EC 252-170-2; $C_{19}H_9Br_4NaO_5S$; M 691.94

Cat. No. 025023 ***Bromophenol blue sodium salt***

Molecular biology

Application: Commonly used as tracking dye for nucleic acid or protein electrophoresis.

Appearance	**Dark green powder**	DNase activity	**Not detected**
Color (1% in water pH = 3.0)	**Greenish yellow**	RNase activity	**Not detected**
Color (1% in water pH = 4.6)	**Blue violet**	Protease activity	**Not detected**

Buffer A-TEAA 0.1M pH 7

CAS [5204-74-0]; EC 225-995-0; $C_6H_{15}NO_2$; M 161.24

Warning; H:315-319-335-336; P:261-280-305+351+338-321-405

Cat. No. 210006

Buffer A-TEAA 0.1M pH 7

HPLC

Application: Used for detection of genetic variations.

Appearance	**Clear solution**	Residue after evaporation	**max. 0.0005%w/w**
pH	**6.9-7.1**	A254nm	**max. 0.01AU**
Assay (T)	**0.095-0.105M**	A270nm	**max. 0.01AU**
Filter test	**Passes test**		

Bottled under aseptic conditions.

Buffer B-TEAA 0.1M in Water/Acetonitrile 75:25

CAS [5204-74-0]; EC 225-995-0; $C_6H_{15}NO_2$; M 161.24

Danger H:225-315-319-335-336; P:210-241-303+361+353-305+351+338-405

Cat. No. 210106

Buffer B-TEAA 0.1M in Water/Acetonitrile 75:25

HPLC

Application: Used for detection of genetic variations.

Appearance	**Clear solution**	Assay (T)	**0.095-0.105M**
Density (20/4°C)	**0.95-0.97gr/ml**	A270nm	**max. 0.02AU**
Filter test	**Passes test**		

Filtered through 0.2µm, filled under inert gas.

Buffer C - Water/Acetonitrile 92:8

D 0.988; UN 1648,3,II,F1;

Danger H:225; P:210-240-241-280-303+361+353

Cat. No. 212606

Buffer C - Water/Acetonitrile 92:8

HPLC

Application: Used for detection of genetic variations.

Appearance	**Clear colorless liquid**	T200nm	**min. 95%**
Density (20/4°C)	**0.98-1.00gr/ml**	T210nm	**min. 97%**
T195nm	**min. 90%**	T>220nm	**min. 99%**

Filtered through 0.2µm, filled under inert gas.

See p. 327 for more formulations of TEAA

Buffer D - Water/Acetonitrile 25:75

D 0.848; UN 1648,3,II,F1;

Danger H:225-312-319-332; P:210-241-261-303+361+353-305+351+338

Cat. No. 212706

Buffer D - Water/Acetonitrile 25:75

HPLC

Application: Used for detection of genetic variations.

Appearance	**Clear colorless liquid**	T200nm	**min. 90%**
Density (20/4°C)	**0.84-0.86gr/ml**	T210nm	**min. 95%**
T195nm	**min. 68%**	T>220nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

1-Butanesulfonic acid sodium salt

CAS [2386-54-1]; EC 219-201-1; $C_4H_9NaO_3S$; M 160.17

Cat. No. 022106

1-Butanesulfonic acid sodium salt

HPLC

Assay (T)	**min. 99%w/w**	T200nm (5mM)	**min. 70%**
pH (0.5M in water)	**5.0-7.0**	T220nm (5mM)	**min. 90%**
Loss on drying (105°C)	**max. 2%**	T250nm (5mM)	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

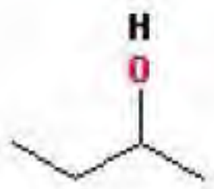
2-Butanol

Synonym: *sec-Butyl alcohol*

CAS [78-92-2]; EC 201-158-5; $C_4H_{10}O$; M 74.12

D 0.80; m.p. -115 °C; b.p. 99 °C; UN 1120,3,III,F1

Warning; H:226-319-335-336; P:210-241-303+361+353-305+351+338-405



Cat. No. 022905

2-Butanol

AR

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.2%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	2-Propanol	**max. 0.2%**
Color (APHA)	**max. 10**	Methyl ethyl ketone	**max. 0.1%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	tert-Butanol	**max. 0.1%**
Residue after evaporation	**max. 0.001%w/w**	Dibutyl ether	**max. 0.2%**

Cat. No. 022951

2-Butanol

AR-S glass distilled

Appearance	**Clear colorless liquid**	Ca (Calcium)	**max. 0.5ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Cd (Cadmium)	**max. 0.05ppm**
Color (APHA)	**max. 10**	Co (Cobalt)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Cr (Chromium)	**max. 0.02ppm**
Water (KF)	**max. 0.2%w/w**	Cu (Copper)	**max. 0.02ppm**
2-Propanol	**max. 0.2%**	Fe (Iron)	**max. 0.1ppm**
Methyl ethyl ketone	**max. 0.1%**	Mg (Magnesium)	**max. 0.1ppm**
tert-Butanol	**max. 0.1%**	Mn (Manganese)	**max. 0.02ppm**
Dibutyl ether	**max. 0.2%**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 022902

2-Butanol

CP

Appearance	**Clear colorless liquid**
Assay (GC, on anhydrous basis)	**min. 99.5%**
Water (KF)	**max. 0.2%w/w**

Iso-Butanol

Synonym: 2-Methyl-1-propanol, Isobutyl alcohol

CAS [78-83-1]; EC 201-148-0; $C_4H_{10}O$; M 74.12

D 0.803; m.p. -108 °C; b.p. 108 °C; UN 1212,3,III,F1

Danger H:226-315-318-335-336; P:210-303+361+353-305+351+338-310

Cat. No. 020906

Iso-Butanol

HPLC

Appearance	**Clear colorless liquid**	T230nm	**min. 70%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	T245nm	**min. 90%**
Water (KF)	**max. 0.04%w/w**	T254nm	**min. 97%**
Residue after evaporation	**max. 0.0005%w/w**	T300nm	**min. 98%**
Identity (IR)	**Conforms with structure**	T400nm	**min. 99%**
T219nm	**min. 35%**		

Cat. No. 020905

Iso-Butanol

AR

Appearance	**Clear colorless liquid**	Solubility	**Passes ACS test**
Color (APHA)	**max. 10**	1-Butanol	**max. 0.1%**
Assay (GC, on anhydrous basis)	**min. 99.0%**	2-Butanol	**max. 0.02%**
Acidity (as Acetic acid)	**max. 0.003%**	Isobutyraldehyde	**max. 0.05%**
Residue after evaporation	**max. 0.001%w/w**	Butyraldehyde	**max. 0.01%**
Water (KF)	**max. 0.05%w/w**	Methyl ethyl ketone	**max. 0.02%**

Cat. No. 020951

Iso-Butanol

AR-S glass distilled

Appearance	**Clear colorless liquid**	Ba (Barium)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Ca (Calcium)	**max. 0.5ppm**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.003%**	Co (Cobalt)	**max. 0.02ppm**
Residue after evaporation	**max. 0.0002%w/w**	Cr (Chromium)	**max. 0.02ppm**
Water (KF)	**max. 0.05%w/w**	Cu (Copper)	**max. 0.02ppm**
Solubility	**Passes ACS test**	Fe (Iron)	**max. 0.1ppm**
1-Butanol	**max. 0.1%**	Mg (Magnesium)	**max. 0.1ppm**
2-Butanol	**max. 0.02%**	Mn (Manganese)	**max. 0.02ppm**
Isobutyraldehyde	**max. 0.01%**	Ni (Nickel)	**max. 0.02ppm**
Butyraldehyde	**max. 0.01%**	Pb (Lead)	**max. 0.1ppm**
Methyl ethyl ketone	**max. 0.02%**	Sn (Tin)	**max. 0.1ppm**
Al (Aluminum)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**		

Cat. No. 020902

Iso-Butanol

CP

Assay (GC, on anhydrous basis)	**min. 99%**
Residue after evaporation	**max. 0.002%w/w**
Water (KF)	**max. 0.1%w/w**

n-Butanol

Synonym: *1-Butanol, 1-Butyl alcohol*

CAS [71-36-3]; EC 200-751-6; $C_4H_{10}O$; M 74.12

D 0.810; m.p. -89 °C; b.p. 117.6 °C; UN 1120,3,III,F1

Danger H:226-302-315-318-335-336; P:210-303+361+353-305+351+338-310

Cat. No. 022006

n-Butanol

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.05%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T210nm	**min. 20%**
Color (APHA)	**max. 10**	T230nm	**min. 70%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T270nm	**min. 90%**
Residue after evaporation	**max. 0.0005%w/w**	T310nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 022084

n-Butanol

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
PAH test (<2ppb by HPLC)	**Passes test**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Residue after evaporation	**max. 0.0005%w/w**	Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
Water (KF)	**max. 0.03%w/w**	GC/ECD volatile impu. (as E. Dibromide)	**max. 5ng/ml**
GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**	T210nm	**min. 20%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 022005

n-Butanol

AR

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.1%w/w**
Color (APHA)	**max. 10**	Dibutyl ether	**max. 0.2%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Butyraldehyde	**max. 0.01%**

Cat. No. 022051

n-Butanol

AR-S glass distilled

Appearance	**Clear colorless liquid**	Ca (Calcium)	**max. 0.5ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Cd (Cadmium)	**max. 0.05ppm**
Color (APHA)	**max. 10**	Co (Cobalt)	**max. 0.02ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Cr (Chromium)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Cu (Copper)	**max. 0.02ppm**
Residue after evaporation	**max. 0.0005%w/w**	Fe (Iron)	**max. 0.1ppm**
Water (KF)	**max. 0.1%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Dibutyl ether	**max. 0.2%**	Mn (Manganese)	**max. 0.02ppm**
Butyraldehyde	**max. 0.01%**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 022002

n-Butanol

CP

Appearance	**Clear colorless liquid**
Assay (GC, on anhydrous basis)	**min. 99.5%**
Residue after evaporation	**max. 0.005%w/w**
Water (KF)	**max. 0.2%w/w**

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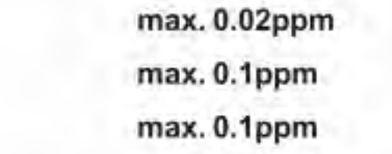
n-Butanol-d1, 99 atom%D



CAS [4712-38-3]; EC 225-201-2; C_4H_9DO; M 75.13

D 0.82; b.p. 118 °C; UN 1120,3,III,F1;

Danger H:226-302-315-318-335-336; P:210-303+361+353-305+351+338-310-405-501

Cat. No. 302995

n-Butanol-d1, 99 atom%D

For NMR

Enrichment (NMR)	**min. 99Atom%D**
Water (KF)	**max. 0.1% H_2O+D_2O**

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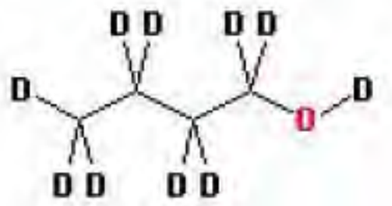
n-Butanol-d10, 99 atom%D

CAS [34193-38-9]; $C_4D_{10}O$; M 84.20; D 0.92

Danger H:226-302-315-318-335-336; P:210-303+361+353-305+351+338-310-405-501



Cat. No. 303095

n-Butanol-d10, 99 atom%D

For NMR

Enrichment (NMR)	**min. 99Atom%D**
Water (KF)	**max. 0.1% H_2O+D_2O**

tert-Butanol

Synonym: *2-Methyl-2-propanol, tert-Butyl alcohol, Trimethyl carbinol*

CAS [75-65-0]; EC 200-889-7; $C_4H_{10}O$; M 74.12

D 0.780; m.p. 25-25.5 °C; b.p. 83 °C; UN 1120,3,II,F1

Danger H:225-319-332-335; P:210-241-303+361+353-305+351+338-405-501

Cat. No. 022206

tert-Butanol

HPLC

Appearance	**Clear colorless liquid**	T215nm	**min. 10%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	T230nm	**min. 30%**
Water (KF)	**max. 0.05%w/w**	T250nm	**min. 60%**
Residue after evaporation	**max. 0.0005%w/w**	T300nm	**min. 97%**
Identity (IR)	**Conforms with standard**	T350-400nm	**min. 99%**

Cat. No. 022284

tert-Butanol

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Water (KF)	**max. 0.05%w/w**
Color (APHA)	**max. 10**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F254nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
F365nm (as Quinine)	**max. 1ppb**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	GC/ECD volatile impu. (as E. Dibromide)	**max. 5ng/ml**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	T230nm	**min. 30%**
PAH test (<2ppb by HPLC)	**Passes test**		

Cat. No. 022205

tert-Butanol

AR

Acidity (as Acetic acid)	**max. 0.001%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.1%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**		

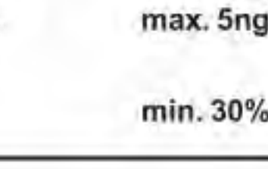
Cat. No. 022202

tert-Butanol

CP

Color (APHA)	**max. 20**
Assay (GC, on anhydrous basis)	**min. 99.0%**
Water (KF)	**max. 0.2%w/w**

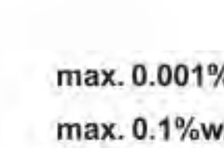
tert-Butanol-d1, 99 atom%D



CAS [3972-25-6]; EC 223-597-1; C_4H_9DO; M 75.13

D 0.80; b.p. 83 °C; UN 1120,3,III,F1;

Danger H:225-319-332-335; P:210-241-303+361+353-305+351+338-405-501



Cat. No. 303195

tert-Butanol-d1, 99 atom%D

For NMR

Enrichment (NMR)	**min. 99Atom%D**
Water (KF)	**max. 2% H_2O+D_2O**

2-Butoxyethyl acetate

Synonym: *1-Acetoxy-2-butoxyethane, Ethylene glycol monobutyl ether acetate*

CAS [112-07-2]; EC 203-933-3; $C_8H_{16}O_3$; M 160.21

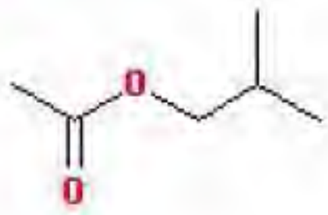
Warning; H:312-332; P:261-280-304+340-312-322

Cat. No. 021902 ***2-Butoxyethyl acetate CP***

Acidity (as Acetic acid)	**max. 0.005%**	Color (APHA)	**max. 30**
Assay (GC, on anhydrous basis)	**min. 99%**	Identity (IR)	**Conforms to standard**
Water (KF)	**max. 0.1%w/w**		

Iso-Butyl acetate

CAS [110-19-0]; EC 203-745-1; $C_6H_{12}O_2$; M 116.16



Danger H:225; EUH:066; P:210-240-241-280-303+361+353

Cat. No. 024502 ***Iso-Butyl acetate CP***

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.002%w/w**
Acidity (as Acetic acid)	**max. 0.01%**	Water (KF)	**max. 0.03%w/w**
Assay (GC, on anhydrous basis)	**min. 99%**	Identity (IR)	**Conforms to standard**

n-Butyl acetate

CAS [123-86-4]; EC 204-658-1; $C_6H_{12}O_2$; M 116.16

D 0.88; m.p. -77.9 °C; b.p. 127 °C; UN 1123,3,III,F1

Warning; H:226-336; EUH:066; P:210-241-261-303+361+353

Cat. No. 020407 ***n-Butyl acetate HPLC-S***

Appearance	**Clear colorless liquid**	T254nm	**min. 10%**
Color (APHA)	**max. 10**	T260nm	**min. 60%**
Assay (GC, on anhydrous basis)	**min. 99.7%**	T275nm	**min. 90%**
Acidity (as Acetic acid)	**max. 0.003%**	T300nm	**min. 95%**
Residue after evaporation	**max. 0.0003%w/w**	T320nm	**min. 98%**
Water (KF)	**max. 0.03%w/w**	T360nm	**min. 99%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 020406 ***n-Butyl acetate HPLC***

Appearance	**Clear colorless liquid**	T260nm	**min. 50%**
Color (APHA)	**max. 10**	T280nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	T300nm	**min. 90%**
Acidity (as Acetic acid)	**max. 0.005%**	T320nm	**min. 95%**
Residue after evaporation	**max. 0.0005%w/w**	T360nm	**min. 99%**
Water (KF)	**max. 0.05%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 020476

n-Butyl acetate

VLSI

Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 50ppb**
Color (APHA)	**max. 10**	Ga (Gallium)	**max. 10ppb**
Assay (GC, on anhydrous basis)	**min. 98.7%**	K (Potassium)	**max. 20ppb**
Acidity	**max. 0.0015meq/gr**	Li (Lithium)	**max. 10ppb**
Water (KF)	**max. 0.05%w/w**	Mg (Magnesium)	**max. 20ppb**
Residue after evaporation	**max. 0.0005%w/w**	Mn (Manganese)	**max. 10ppb**
1-Butanol	**max. 0.5%**	Mo (Molybdenum)	**max. 10ppb**
Ag (Silver)	**max. 10ppb**	Na (Sodium)	**max. 100ppb**
Al (Aluminum)	**max. 50ppb**	Ni (Nickel)	**max. 10ppb**
As (Arsenic)	**max. 10ppb**	Pb (lead)	**max. 10ppb**
Au (Gold)	**max. 10ppb**	Sb (Antimony)	**max. 10ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 10ppb**
Ba (Barium)	**max. 10ppb**	Sr (Strontium)	**max. 10ppb**
Bi (Bismuth)	**max. 10ppb**	Ta (Tantalum)	**max. 10ppb**
Ca (Calcium)	**max. 50ppb**	Ti (Titanium)	**max. 10ppb**
Cd (Cadmium)	**max. 10ppb**	Tl (Thallium)	**max. 10ppb**
Co (Cobalt)	**max. 10ppb**	V (Vanadium)	**max. 10ppb**
Cr (Chromium)	**max. 10ppb**	Zn (Zinc)	**max. 20ppb**
Cu (Copper)	**max. 20ppb**	Particle count > 0.5µm	**max. 250P/ml**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 020410

n-Butyl acetate

MOS

Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 20ppb**
Color (APHA)	**max. 10**	Ga (Gallium)	**max. 50ppb**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Ge (Germanium)	**max. 50ppb**
Acidity	**max. 0.002meq/gr**	K (Potassium)	**max. 100ppb**
Water (KF)	**max. 0.05%w/w**	Li (Lithium)	**max. 50ppb**
Residue after evaporation	**max. 0.001%w/w**	Mg (Magnesium)	**max. 20ppb**
Phosphate (PO_4)	**max. 0.5ppm**	Mn (Manganese)	**max. 20ppb**
Dilution test	**Passes test**	Na (Sodium)	**max. 100ppb**
Ag (Silver)	**max. 20ppb**	Ni (Nickel)	**max. 10ppb**
Al (Aluminum)	**max. 20ppb**	Pb (lead)	**max. 50ppb**
As & Sb (as As)	**max. 10ppb**	Si (Silicon)	**max. 100ppb**
Au (Gold)	**max. 20ppb**	Sn (Tin)	**max. 50ppb**
B (Boron)	**max. 10ppb**	Sr (Strontium)	**max. 10ppb**
Ba (Barium)	**max. 10ppb**	Ti (Titanium)	**max. 100ppb**
Ca (Calcium)	**max. 50ppb**	Zn (Zinc)	**max. 30ppb**
Cd (Cadmium)	**max. 20ppb**	Heavy metals (as Pb)	**max. 100ppb**
Co (Cobalt)	**max. 20ppb**	Particle count > 0.5µm	**max. 130P/ml**
Cr (Chromium)	**max. 20ppb**	Particle count > 1µm	**max. 10P/ml**
Cu (Copper)	**max. 20ppb**		

Filtered through 0.2µm.

Cat. No. 020405

n-Butyl acetate

AR

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.5%**
Acidity (as Acetic acid)	**max. 0.01%**	1-Butanol	**max. 0.2%**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.001%w/w**
Subs. darkened by Sulfuric Acid	**Passes test**	Water (KF)	**max. 0.1%w/w**

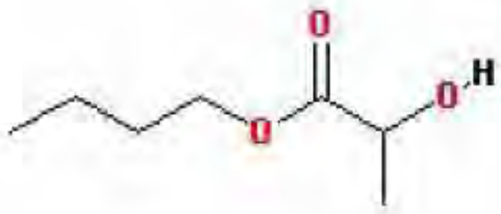
Cat. No. 020402 ***n-Butyl acetate***
CP

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.005%w/w**
Acidity (as Acetic acid)	**max. 0.01%**	Refractive index (20/D)	**1.392-1.396**
Density (20/4°C)	**0.875-0.885gr/ml**	Water (KF)	**max. 0.1%w/w**
Assay (GC, on anhydrous basis)	**min. 98%**		

(S)-(-)-Butyl lactate

CAS [138-22-7]; EC 205-316-4; $C_7H_{14}O_3$; M 146.19

D 0.984; m.p. -43 °C; b.p. 170 °C;



Cat. No. 026302 ***(S)-(-)-Butyl lactate***
CP

Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 97%**

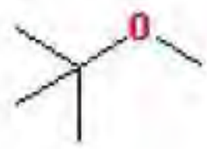
tert-Butyl methyl ether

Synonym: *MTBE, Methyl tert-butyl ether*

CAS [1634-04-4]; EC 216-653-1; $C_5H_{12}O$; M 88.15

D 0.740; m.p. -110 °C; b.p. 54-56 °C; UN 2398,3,II,F1

Danger H:225-315; P:210-241-280-303+361+353-321



Cat. No. 138907 ***tert-Butyl methyl ether***
HPLC-S

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.02%w/w**
Color (APHA)	**max. 10**	T210nm	**min. 10%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T220nm	**min. 40%**
F254nm (as Quinine)	**max. 1ppb**	T240nm	**min. 60%**
F365nm (as Quinine)	**max. 1ppb**	T260nm	**min. 90%**
Acidity (as Acetic acid)	**max. 0.002%**	T280nm	**min. 98%**
Peroxides (as H_2O_2)	**max. 0.0005%**	T300nm	**min. 99%**
Residue after evaporation	**max. 0.0002%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 138906 ***tert-Butyl methyl ether***
HPLC

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.02%w/w**
Color (APHA)	**max. 10**	T250nm	**min. 60%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	T260nm	**min. 90%**
Peroxides (as H_2O_2)	**max. 0.0005%**	T280nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 138916 ***tert-Butyl methyl ether***
HPLC Preparative

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 15**	Water (KF)	**max. 0.1%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	T250nm	**min. 55%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	T260nm	**min. 75%**
Peroxides (as H_2O_2)	**max. 0.001%**	T280nm	**min. 95%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 138924

tert-Butyl methyl ether

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	Peroxides (as H_2O_2)	**max. 0.0005%**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.02%w/w**
Color (APHA)	**max. 10**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F254nm (as Quinine)	**max. 1ppb**		
F365nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 99.9%**		
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
PAH test (<2ppb by HPLC)	**Passes test**	GC/ECD volatile impu. (as E. Dibromide)	**max. 5ng/ml**
		T250nm	**min. 60%**
		Residue after evaporation	**max. 0.0003%w/w**

Cat. No. 138960

tert-Butyl methyl ether

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	Peroxides (as H_2O_2)	**max. 0.0005%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Color (APHA)	**max. 10**		
Residue after evaporation	**max. 0.0003%w/w**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Water (KF)	**max. 0.02%w/w**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**

Cat. No. 138926

tert-Butyl methyl ether

Pesti-S

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.05%w/w**
Assay (GC, on anhydrous basis)	**min. 99.7%**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Color (APHA)	**max. 10**		
Residue after evaporation	**max. 0.0005%w/w**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
		Peroxides (as H_2O_2)	**max. 0.0005%**

Cat. No. 138905

tert-Butyl methyl ether

AR

Appearance	**Clear colorless liquid**	Peroxides (as H_2O_2)	**max. 0.0001%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.02%w/w**
Assay (GC, on anhydrous basis)	**min. 99.0%**		

Cat. No. 138951

tert-Butyl methyl ether

AR-S glass distilled

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cr (Chromium)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Cu (Copper)	**max. 0.02ppm**
Peroxides (as H_2O_2)	**max. 0.0005%**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0005%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Water (KF)	**max. 0.02%w/w**	Mn (Manganese)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Ni (Nickel)	**max. 0.02ppm**
B (Boron)	**max. 0.02ppm**	Pb (Lead)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 138947

tert-Butyl methyl ether

Extra dry

Appearance	**Clear colorless liquid**	Peroxides (as H_2O_2)	**max. 0.0005%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.003%w/w**
Assay (GC, on anhydrous basis)	**min. 99%**		

Cat. No. 138933

tert-Butyl methyl ether

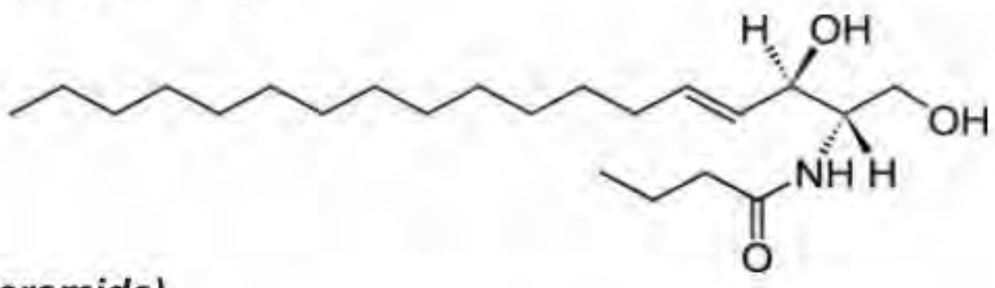
Peptide synthesis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Fe (Iron)	**max. 0.1ppm**
Free Amines (Kaiser)	**max. 0.0002%**	Mg (Magnesium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99%**	Pb (Lead)	**max. 0.1ppm**
Peroxides (as H_2O_2)	**max. 0.0005%**	Zn (Zinc)	**max. 0.1ppm**

N-Butyroyl-D-erythro-Sphingosine (C4 Ceramide)

Synonym: *Ceramide C4; N-(butyroyl)-sphing-4-enine.*

CAS [74713-58-9]; $C_{22}H_{43}NO_3$; M 369.32;



Cat. No. 038980

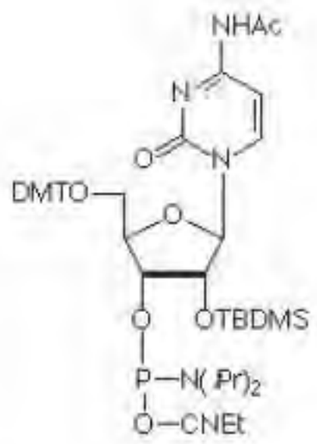
N-Butyroyl-D-erythro-Sphingosine (C4 Ceramide)

For synthesis

Appearance	**White to off white solid**	Purity (TLC)	**min. 98%**
Assay (HPLC)	**min. 98%**	NMR H^1 spectrum	**Conforms to structure**

C(Ac)-OTBDMS-CE Phosphoramidite

$C_{47}H_{64}N_5O_8PSi$; M 902.11;



Cat. No. 182224

C(Ac)-OTBDMS-CE Phosphoramidite

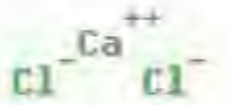
DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

Calcium chloride anhydrous

CAS [10043-52-4]; EC 233-140-8; $CaCl_2$; M 110.98

Warning; H:319; P:264-280-305+351+338-337+313



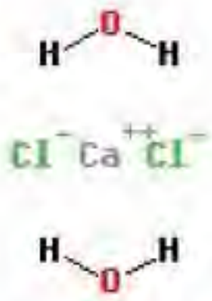
Cat. No. 034099

Calcium chloride anhydrous

General reagent

Appearance	**White to off-white solid**	Heavy metals (as Pb)	**max. 0.002%**
Assay (on dry basis)	**min. 95.0%**	Magnesium and Alkaline earth metals	**max. 0.05%**
Alkalinity [as $Ca(OH)_2$]	**max. 5.0%**	Sulfate (SO_4) pH	**max. 0.01%**
Arsenic (As)	**max. 0.0003%**	(5% in water)	**4.5-9.2**

Calcium chloride dihydrate



CAS [10035-04-8]; EC 233-140-8; $CaCl_2x2H_2O$; M 147.01

Warning; H:319; P:264-280-305+351+338-337+313

Cat. No. 034205

Calcium chloride dihydrate

AR

Appearance	**White matter**	Heavy metals (as Pb)	**max. 0.0005%**
Assay (on dry basis)	**99-101%**	pH (5% in water)	**4.5-8.5**
Iron (Fe)	**max. 0.001%**	Alkalinity [as Ca(OH)2]	**max. 0.005%**

Cat. No. 034223

Calcium chloride dihydrate

Molecular biology

Appearance	**White powder**	pH (5% in water)	**4.5-8.5**
Assay (on dry basis)	**98-102%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.001%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**

Cat. No. 034202

Calcium chloride dihydrate

CP

Appearance	**White matter**
Assay (on dry basis)	**97-103%**
Iron (Fe)	**max. 0.002%**
Alkalinity [as $Ca(OH)_2$]	**max. 0.02%**

Cap A

Composition: THF/Lut/Ac2O 80:10:10

D 0.91; UN 3286,3+6.1+8,II,FTC;

Danger H:225-302-315-318-335-336; EUH:019; P:210-303+361+353-305+351+338-310

Cat. No. 032324

Cap A

DNA synthesis

Appearance	**Clear solution**	Acetic anhydride	**9.5-10.5%**
Lutidine	**9.5-10.5%**	Water (KF)	**max. 0.01%w/w**
Tetrahydrofuran	**79-81%**		

Cap A

Composition: THF/Ac_2O 90:10

D 0.91; UN 2924,3+8,II,FC;

Danger H:225-315-318-335-336; EUH:019; P:210-303+361+353-305+351+338-310

Cat. No. 033624

Cap A

DNA synthesis

Appearance	**Clear solution**
Acetic anhydride	**9.5-10.5%**
Water (KF)	**max. 0.01%w/w**

Cap A

Composition: *ACN/NMI 80:20*

D 0.83; UN 2924,3 (8),II,FC;

Danger H:225-312-314-332; P:210-303+361+353-305+351+338-310

Cat. No. 036124

Cap A

DNA synthesis

Appearance	**Clear solution**	Purity of ACN	**min. 99.9%**
N-Methylimidazole	**19.5-20.5%**	Purity of NMI	**min. 99%**
Water (KF)	**max. 0.005%w/w**		

Cap A

Composition: *THF/Pyr/Ac_2O 80:10:10*

D 0.92; UN 2924,3 (8), II,FC;

Danger H:225-315-318-335-336; EUH:019; P:210-303+361+353-305+351+338-310

Cat. No. 035624

Cap A

DNA synthesis

Appearance	**Clear solution**	Acetic anhydride	**9.5-10.5%**
Pyridine	**9.5-10.5%**	Water (KF)	**max. 0.01%w/w**
Tetrahydrofuran	**79-81%**		

Cap A mild 10%

Composition: *THF/Pac_2O 90:10*

D 0.91; UN 2056,3,II,F1;

Danger H:225-315-319-335; EUH:019; P:210-241-303+361+353-305+351+338

Cat. No. 036924

Cap A mild 10%

DNA synthesis

Appearance	**Clear solution**
Phenoxyacetic anhydride	**9.5-10.5%w/v**
Water (KF)	**max. 0.01%w/w**

Cap A mild 5%

Composition: *THF/Pyr/Pac_2O 85:10:5*

D 0.908; UN 1993,3,II,F1;

Danger H:225-319-335; EUH:019; P:210-241-303+361+353-305+351+338-405

Specification continues on the next page

Cat. No. 042824

Cap A mild 5%

DNA synthesis

Appearance	**Clear liquid**	Pyridine	**9.5-10.5%v/v**
Phenoxyacetic anhydride	**4.5-5.5%w/v**	Tetrahydrofuran	**84-86%v/v**
Water (KF)	**max. 0.01%w/w**		

Cap B 10%

Composition: *THF/NMI 90:10*

D 0.9; UN 1993,3,II,F1;

Danger H:225-314-335-336; EUH:019; P:210-303+361+353-305+351+338-310

Cat. No. 032424

Cap B 10%

DNA synthesis

Appearance	**Clear solution**
N-Methylimidazole	**9.5-10.5%v/v**
Water (KF)	**max. 0.01%w/w**

Cap B 10%

Composition: *THF/Pyr/NMI 80:10:10*

D 0.91; UN 1993,3,II,F1;

Danger H:225-302-314-335-336; EUH:019; P:210-303+361+353-305+351+338-310

Cat. No. 033524

Cap B 10%

DNA synthesis

Appearance	**Clear solution**	N-Methylimidazole	**9.5-10.5%**
Pyridine	**9.5-10.5%**	Water (KF)	**max. 0.01%w/w**
Tetrahydrofuran	**79-81%**		

Cap B 16%

Composition: *THF/NMI 84:16*

UN 1993,3,II,F1;

Danger H:225-314-335-336; EUH:019; P:210-303+361+353-305+351+338-310

Cat. No. 035724

Cap B 16%

DNA synthesis

Appearance	**Clear solution**
N-Methylimidazole	**15.2-16.8%v/v**
Water (KF)	**max. 0.01%w/w**

See also DNA & RNA synthesis section, p. 363-418

Cap B kit for AKTA Oligopilot

Composition: *CAP B1 0374 + CAP B2 0375.*

UN 3286,3+6.1+8,II,FTC;

Danger H:225-302-315-318-335-336; P:101-102-103-210-303+361+353-305+351+338-310-405

Cat. No. 036524

Cap B kit for AKTA Oligopilot

DNA synthesis

Appearance - Part B1	**Clear solution**	Lutidine - Part B2	**59.5-60.5%**
Acetic anhydride - Part B1	**39.5-40.5%**	Water - Part B2	**max. 0.01%**
Water - Part B1	**max. 0.005%**	Color (APHA) - Part B2	**max. 15**
Apperance - Part B2	**Clear solution**		

Cap B1

Composition: *Ac_2O/ACN 40:60*

D 0.90; UN 2924,3+8,II,FC;

Danger H:225-312-314-332-335-336; P:210-303+361+353-305+351+338-310

Cat. No. 037424

Cap B1

DNA synthesis

Identity (GC) - part B1	**Complies**	Acetonitrile - Part B1	**59.5-60.5%**
Appearance - Part B1	**Clear solution**	Water - Part B1	**max. 0.005%**
Acetic anhydride - Part B1	**39.5-40.5%**		

Cap B2

Composition: *Lut/ACN 60:40*

D 0.87; UN 1992,3+6.1,II,FT1;

Danger H:225-302-319; P:210-241-280-303+361+353-305+351+338

Cat. No. 037524

Cap B2

DNA synthesis

Identity (GC) - Part B2	**Complies**	Acetonitrile - Part B2	**39.5-40.5%**
Color (APHA) - Part B2	**max. 15**	Water - Part B2	**max. 0.01%**
Apperance - Part B2	**Clear solution**		
Lutidine - Part B2	**59.5-60.5%**		

Caps free acid

Synonym: *3-(Cyclohexylamino)-1-propanesulfonic acid*

CAS [1135-40-6]; EC 214-492-1; $C_9H_{19}NO_3S$; M 221.31

Specification continues on the next page

Cat. No. 035023

Caps free acid

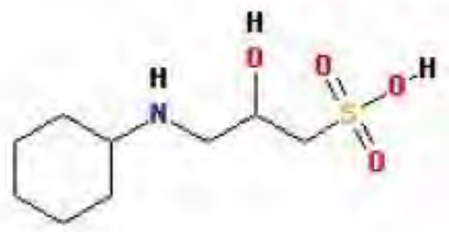
Molecular biology

Application: Commonly used as buffering substance useful at pH range 9.7-11.1

Appearance	**White to off white powder**	A280nm (0.05M)	**max. 0.02AU**
Solubility (10% in Water)	**Clear colorless solution**	DNase activity	**Not detected**
Assay (T)	**98-102%w/w**	RNase activity	**Not detected**
A260nm (0.05M)	**max. 0.02AU**	Protease activity	**Not detected**

Capso free acid

Synonym: *3-(Cyclohexylamino)-2-hydroxy-1-propanesulfonic acid,*



CAS [73463-39-5]; $C_9H_{19}NO_4S$; M 237.32; m.p. 270-274°C

Cat. No. 035123

Capso free acid

Molecular biology

Application: Commonly used as buffering substance useful at pH range 8.9 – 10.3.

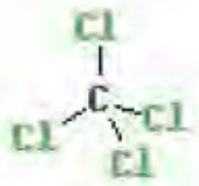
Appearance	**White to off white powder**	Assay (T)	**min. 98%w/w**
Solubility (0.1M in water)	**Clear colorless solution**	DNase activity	**Not detected**
Loss on drying (105°C)	**max. 2%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0015%**	Protease activity	**Not detected**
pH (0.1M in water)	**11-12**		

Carbon tetrachloride

CAS [56-23-5]; EC 200-262-8; CCl_4; M 153.82

D 1.59; m.p. -23 °C; b.p. 76 °C; UN 1846,6.1,II,T1

Danger H:301-311-331-351-372-412; EUH:059; P:260-301+310-321-361



Cat. No. 032006

Carbon tetrachloride

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.02%w/w**
Acidity (as HCl)	**max. 0.001%**	T270nm	**min. 50%**
Color (APHA)	**max. 10**	T280nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T290nm	**min. 98%**
Residue after evaporation	**max. 0.001%w/w**		

Cat. No. 032038

Carbon tetrachloride

Spectrofluopure

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as HCl)	**max. 0.001%**	Water (KF)	**max. 0.02%w/w**
Color (APHA)	**max. 10**	T270nm	**min. 50%**
F254nm (as Quinine)	**max. 1ppb**	T280nm	**min. 80%**
F365nm (as Quinine)	**max. 0.5ppb**	T290nm	**min. 98%**
Assay (GC, on anhydrous basis)	**min. 99.8%**		

Cat. No. 032005

Carbon tetrachloride

AR

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.5%**
Acidity (as HCl)	**max. 0.001%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.02%w/w**
Free Chlorine	**Passes test**		

Cat. No. 032051

Carbon tetrachloride

AR-S glass distilled

Appearance	**Clear colorless liquid**	Co (Cobalt)	**max. 0.02ppm**
Acidity (as Acetic acid)	**max. 0.003%**	Cr (Chromium)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cu (Copper)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0003%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Water (KF)	**max. 0.02%w/w**	Mn (Manganese)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Ni (Nickel)	**max. 0.02ppm**
B (Boron)	**max. 0.02ppm**	Pb (Lead)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**
Cd (Cadmium)	**max. 0.05ppm**		

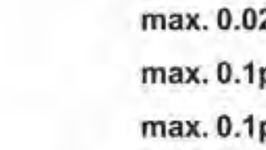
Cat. No. 032002

Carbon tetrachloride

CP

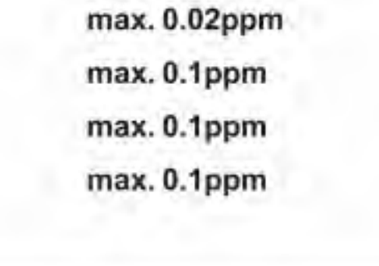
Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 98.5%**
Residue after evaporation	**max. 0.005%w/w**

N,N'-Carbonyldiimidazole (CDI)



Synonym: *CDI*

CAS [530-62-1]; EC 208-488-9; $C_7H_6N_4O$; M 162.15



Danger H:302-314; P:260-303+361+353-305+351+338-310

Cat. No. 036033

N,N'-Carbonyldiimidazole (CDI)

Peptide synthesis

Appearance	**White to off-white solid**
Purity (HPLC)	**min. 98%**
Water (KF)	**max. 0.5%w/w**

CHAPS

Synonym: *3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate*

CAS [75621-03-3]; $C_{32}H_{58}N_2O_7S$; M 614.89; m.p. 157 °C

Danger H:315-319-335-360D; P:261-280-305+351+338-321-405

Cat. No. 035223

CHAPS

Molecular biology

Appearance	**White to off white powder**	Loss on drying (105°C)	**max. 2.0%**
Assay (T)	**98.0-102.0%w/w**	Conductivity (0.1M in Water)	**max. 10µS/cm**
Solubility (10% in Water)	**Clear colorless solution**		

1-Chlorobutane

Synonym: *Butyl chloride*

CAS [109-69-3]; EC 203-696-6; C_4H_9Cl; M 92.57

D 0.89; m.p. -123 °C; b.p. 77-78 °C; UN 1127,3,II,F1

Danger H:225; P:210-240-241-280-303+361+353

Cat. No. 030906

1-Chlorobutane

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.0005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T230nm	**min. 70%**
Acidity (as HCl)	**max. 0.001%**	T240nm	**min. 90%**
Alkalinity (as Ammonia)	**max. 0.0005%**	T260nm	**min. 96%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 030905

1-Chlorobutane

AR

Appearance	**Clear colorless liquid**	Alkalinity (as Ammonia)	**max. 0.0003%**
Color (APHA)	**max. 10**	1-Butanol	**max. 0.05%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Water (KF)	**max. 0.02%w/w**
Acidity (as HCl)	**max. 0.001%**	Residue after evaporation	**max. 0.001%w/w**

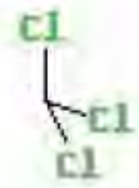
Filtered through 0.2µm, filled under inert gas.

Chloroform (stab./Amylene)

Synonym: *Methylidyne trichloride, Trichloromethane*

CAS [67-66-3]; EC 200-663-8; $CHCl_3$; M 119.38

D 1.48; m.p. - 63°C; b.p. 61°C; UN 1888,6.1,III,T1



Danger H:302-315-319-331-351-372-361d; P:260-280-305+351+338-405-501

Cat. No. 030807

Chloroform (stab./Amylene)

HPLC-S

Appearance	**Clear colorless liquid**	Stabilizer (Amylene)	**0.003-0.006%w/w**
Acidity (as HCl)	**max. 0.001%**	Water (KF)	**max. 0.01%w/w**
Alkalinity (as Ammonia)	**max. 0.0002%**	T255nm	**min. 75%**
Color (APHA)	**max. 10**	T260nm	**min. 90%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T>275nm	**min. 98%**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 030806

Chloroform (stab./Amylene)

HPLC

Appearance	**Clear colorless liquid**	Stabilizer (Amylene)	**0.003-0.006%w/w**
Acidity (as HCl)	**max. 0.001%**	Water (KF)	**max. 0.01%w/w**
Alkalinity (as Ammonia)	**max. 0.0004%**	T255nm	**min. 70%**
Color (APHA)	**max. 10**	T260nm	**min. 85%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T>280nm	**min. 98%**
Residue after evaporation	**max. 0.0005%w/w**		

Filtered through 0.2µm, filled under inert gas.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Cat. No. 030838

Chloroform (stab./Amylene)

Spectrofluopure

Appearance	**Clear colorless liquid**	Stabilizer (Amylene)	**0.003-0.006%w/w**
Acidity (as HCl)	**max. 0.001%**	Water (KF)	**max. 0.01%w/w**
Alkalinity (as Ammonia)	**max. 0.0002%**	T245nm	**min. 10%**
Color (APHA)	**max. 10**	T250nm	**min. 50%**
F254nm (as Quinine)	**max. 1ppb**	T257nm	**min. 80%**
F365nm (as Quinine)	**max. 1ppb**	T270nm	**min. 97%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T>280nm	**min. 99%**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 030809

Chloroform (stab./Amylene)

Spectropure

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as HCl)	**max. 0.001%**	T245nm	**min. 10%**
Alkalinity (as Ammonia)	**max. 0.0002%**	T250nm	**min. 50%**
Color (APHA)	**max. 10**	T257nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T270nm	**min. 97%**
Residue after evaporation	**max. 0.0003%w/w**	T>280nm	**min. 99%**
Stabilizer (Amylene)	**0.003-0.006%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 030860

Chloroform (stab./Amylene)

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as HCl)	**max. 0.001%**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Color (APHA)	**max. 10**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 99.90%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Residue after evaporation	**max. 0.003%w/w**	Stabilizer (Amylene)	**0.003-0.006%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 030626

Chloroform (stab./Amylene)

Pesti-S

Appearance	**Clear colorless liquid**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Acidity (as HCl)	**max. 0.001%**	Residue after evaporation	**max. 0.0005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Stabilizer (Amylene)	**0.003-0.006%w/w**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**	Water (KF)	**max. 0.01%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 030810

Chloroform (stab./Amylene)

MOS

Color (APHA)	**max. 10**	Cu (Copper)	**max. 10ppb**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Fe (Iron)	**max. 50ppb**
Residue after evaporation	**max. 0.0005%w/w**	Li (Lithium)	**max. 30ppb**
Stabilizer (Amylene)	**0.003-0.006%w/w**	Mg (Magnesium)	**max. 30ppb**
Water (KF)	**max. 0.01%w/w**	Mn (Manganese)	**max. 20ppb**
Acidity (as HCl)	**max. 0.001%**	Mo (Molybdenum)	**max. 30ppb**
Chloride (Cl)	**max. 2ppm**	Ni (Nickel)	**max. 20ppb**
Ag (Silver)	**max. 20ppb**	Pb (lead)	**max. 30ppb**
Al (Aluminum)	**max. 20ppb**	Sb (Antimony)	**max. 30ppb**
As (Arsenic)	**max. 20ppb**	Si (Silicon)	**max. 50ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 30ppb**
Ba (Barium)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Be (Beryllium)	**max. 20ppb**	V (Vanadium)	**max. 50ppb**
Cd (Cadmium)	**max. 20ppb**	Zn (Zinc)	**max. 50ppb**
Co (Cobalt)	**max. 20ppb**	Particle count > 0.5µm	**max. 100P/ml**
Cr (Chromium)	**max. 20ppb**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 030805

Chloroform (stab./Amylene)

AR

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as HCl)	**max. 0.001%**	Stabilizer (Amylene)	**0.003-0.006%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.01%w/w**
Free Chlorine	**Passes ACS test, negative**	Acid and chloride	**Passes ACS test**
Subs. darkened by Sulfuric Acid	**Passes ACS test**	Acetone & Aldehydes	**Passes ACS test**
Assay (GC, on anhydrous basis)	**min. 99.9%**		

Cat. No. 030851

Chloroform (stab./Amylene)

AR-S glass distilled

Acidity (as HCl)	**max. 0.001%**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cr (Chromium)	**max. 0.02ppm**
Free Chlorine	**Passes test**	Cu (Copper)	**max. 0.02ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Fe (Iron)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Mg (Magnesium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0005%w/w**	Mn (Manganese)	**max. 0.02ppm**
Stabilizer (Amylene)	**0.003-0.006%w/w**	Ni (Nickel)	**max. 0.02ppm**
Water (KF)	**max. 0.01%w/w**	Pb (Lead)	**max. 0.05ppm**
Al (Aluminum)	**max. 0.5ppm**	Sn (Tin)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Zn (Zinc)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Acid and chloride	**Passes ACS test**
Ca (Calcium)	**max. 0.5ppm**	Acetone & Aldehydes	**Passes ACS test**
Cd (Cadmium)	**max. 0.05ppm**		

Cat. No. 030864

Chloroform (stab./Amylene)

Meets ACS/EP/BP/USP spec.

Appearance	**Clear colorless liquid**	Aldehydes	**Passes BP test**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Water (KF)	**max. 0.01%w/w**
Identification	**Conforms**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Suitability for Dithizone test	**Meets the requirements**
Acidity (as HCl)	**max. 0.0002%**	Cr (Chromium)	**max. 0.1ppm**
Specific gravity (20°C)	**1.476-1.483**	Cu (Copper)	**max. 0.1ppm**
Acid and chloride	**Passes ACS test**	Fe (Iron)	**max. 0.1ppm**
Chloride (Cl)	**max. 0.0001%**	Ir (Iridium)	**max. 0.1ppm**
Free Chlorine	**max. 0.00003%**	Mn (Manganese)	**max. 0.1ppm**
Subs. darkened by Sulfuric Acid	**Passes ACS test**	Mo (Molybdenum)	**max. 0.1ppm**
Stabilizer (Amylene)	**0.003-0.006%w/w**	Ni (Nickel)	**max. 0.1ppm**
Carbon tetrachloride	**max. 0.01%v/v**	Os (Osmium)	**max. 0.1ppm**
Dichloromethane	**max. 0.01%**	Pd (Palladium)	**max. 0.1ppm**
Tetrachloroethylene	**max. 0.01%**	Pt (Platinum)	**max. 0.1ppm**
Trichloroethene	**max. 0.01%**	Rh (Rhodium)	**max. 0.1ppm**
Related substance	**max. 0.7%**	Ru (Ruthenium)	**max. 0.1ppm**
Distillation range	**Meets the requirements**	V (Vanadium)	**max. 0.1ppm**
Carbonyl compounds (as CO)	**max. 0.005%**	Zn (Zinc)	**max. 0.1ppm**
Acetone & Aldehydes	**Passes ACS test**		

Cat. No. 030859

Chloroform (stab./Amylene)

Supra dry

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as HCl)	**max. 0.001%**	Stabilizer (Amylene)	**0.003-0.006%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Water (KF)	**max. 0.001%w/w**

Cat. No. 030847

Chloroform (stab./Amylene)

Extra dry

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as HCl)	**max. 0.001%**	Stabilizer (Amylene)	**0.003-0.006%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Water (KF)	**max. 0.005%w/w**

Cat. No. 030853

Chloroform (stab./Amylene)

Extra dry / M. sieves

Acidity (as HCl)	**max. 0.001%**
Assay (GC, on anhydrous basis)	**min. 99.8%**
Stabilizer (Amylene)	**0.003-0.006%w/w**
Water (KF)	**max. 0.005%w/w**

Cat. No. 030823

Chloroform (stab./Amylene)

Molecular biology

Application: Commonly used as cosolvent in nucleic acid purification.

Acidity (as HCl)	**max. 0.001%**	Water (KF)	**max. 0.01%w/w**
Subs. darkened by Sulfuric Acid	**Passes test**	A280nm	**max. 0.01AU**
Assay (GC, on anhydrous basis)	**min. 99.9%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.00005%**	RNase activity	**Not detected**
Residue after evaporation	**max. 0.001%w/w**	Protease activity	**Not detected**
Stabilizer (Amylene)	**0.003-0.006%w/w**		

Cat. No. 030802

Chloroform (stab./Amylene)

CP

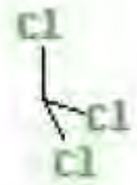
Appearance	**Clear colorless liquid**	Stabilizer (Amylene)	**0.003-0.006%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Water (KF)	**max. 0.03%w/w**
Residue after evaporation	**max. 0.002%w/w**		

Chloroform (stab./Ethanol)

Synonym: *Methylidyne trichloride, Trichloromethane*

CAS [67-66-3]; EC 200-663-8; $CHCl_3$; M 119.38

D 1.48; m.p. -63 °C; b.p. 61°C; UN 1888,6.1,III,T1



Danger H:302-315-319-331-351-372-361d; P:260-280-305+351+338-405-501

Cat. No. 034807

Chloroform (stab./Ethanol)

HPLC-S

Appearance	**Clear colorless liquid**	Stabilizer (EtOH)	**0.5-1.5%w/v**
Acidity (as HCl)	**max. 0.001%**	Water (KF)	**max. 0.05%w/w**
Alkalinity (as Ammonia)	**max. 0.0002%**	T255nm	**min. 75%**
Assay (GC, corr. stabilizers)	**min. 99.9%**	T260nm	**min. 90%**
Color (APHA)	**max. 10**	T>275nm	**min. 98%**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 034806

Chloroform (stab./Ethanol)

HPLC

Appearance	**Clear colorless liquid**	Stabilizer (EtOH)	**0.5-1.5%w/v**
Acidity (as HCl)	**max. 0.001%**	Water (KF)	**max. 0.05%w/w**
Alkalinity (as Ammonia)	**max. 0.0004%**	T255nm	**min. 70%**
Assay (GC, corr. stabilizers)	**min. 99.9%**	T260nm	**min. 85%**
Color (APHA)	**max. 10**	T>280nm	**min. 98%**
Residue after evaporation	**max. 0.0005%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 034826

Chloroform (stab./Ethanol)

Pesti-S

Appearance	**Clear colorless liquid**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Acidity (as HCl)	**max. 0.001%**	Residue after evaporation	**max. 0.0005%w/w**
Assay (GC, corr. stabilizers)	**min. 99.9%**	Stabilizer (EtOH)	**0.5-1.5%w/v**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**	Water (KF)	**max. 0.01%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 034805

Chloroform (stab./Ethanol)

AR

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as HCl)	**max. 0.001%**	Stabilizer (EtOH)	**0.5-1.5%w/v**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.01%w/w**
Free Chlorine	**Passes test, negative**	Acid and chloride	**Passes ACS test**
Subs. darkened by Sulfuric Acid	**Passes test**	Acetone & Aldehydes	**Passes ACS test**
Assay (GC, corr. stabilizers)	**min. 99.9%**		

Cat. No. 034851

Chloroform (stab./Ethanol)

AR-S glass distilled

Acidity (as HCl)	**max. 0.001%**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cr (Chromium)	**max. 0.02ppm**
Free Chlorine	**Passes test**	Cu (Copper)	**max. 0.02ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Fe (Iron)	**max. 0.1ppm**
Assay (GC, corr. stabilizers)	**min. 99.9%**	Mg (Magnesium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0005%w/w**	Mn (Manganese)	**max. 0.02ppm**
Stabilizer (EtOH)	**0.5-1.5%w/v**	Ni (Nickel)	**max. 0.02ppm**
Water (KF)	**max. 0.01%w/w**	Pb (Lead)	**max. 0.05ppm**
Al (Aluminum)	**max. 0.5ppm**	Sn (Tin)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Zn (Zinc)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Acid and chloride	**Passes ACS test**
Ca (Calcium)	**max. 0.5ppm**	Acetone & Aldehydes	**Passes ACS test**
Cd (Cadmium)	**max. 0.05ppm**		

Cat. No. 034864

Chloroform (stab./Ethanol)

Meets ACS/EP/BP/USP spec.

Appearance	**Clear colorless liquid**	Aldehydes	**Passes BP test**
Assay (GC, on anhydrous basis)	**99.0-99.4%**	Water (KF)	**max. 0.01%w/w**
Identification	**Conforms**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Suitability for Dithizone test	**Meets the requirements**
Acidity (as HCl)	**max. 0.0002%**	Cr (Chromium)	**max. 0.1ppm**
Specific gravity (20°C)	**1.475-1.481**	Cu (Copper)	**max. 0.1ppm**
Acid and chloride	**Passes ACS test**	Fe (Iron)	**max. 0.1ppm**
Chloride (Cl)	**max. 0.0001%**	Ir (Iridium)	**max. 0.1ppm**
Free Chlorine	**max. 0.00003%**	Mn (Manganese)	**max. 0.1ppm**
Subs. darkened by Sulfuric Acid	**Passes ACS test**	Mo (Molybdenum)	**max. 0.1ppm**
Stabilizer (EtOH)	**0.6-1.0%w/w**	Ni (Nickel)	**max. 0.1ppm**
Carbon tetrachloride	**max. 0.01%v/v**	Os (Osmium)	**max. 0.1ppm**
Dichloromethane	**max. 0.01%**	Pd (Palladium)	**max. 0.1ppm**
Tetrachloroethylene	**max. 0.01%**	Pt (Platinum)	**max. 0.1ppm**
Trichloroethene	**max. 0.01%**	Rh (Rhodium)	**max. 0.1ppm**
Related substance	**max. 0.7%**	Ru (Ruthenium)	**max. 0.1ppm**
Distillation range	**Meets the requirements**	V (Vanadium)	**max. 0.1ppm**
Carbonyl compounds (as CO)	**max. 0.005%**	Zn (Zinc)	**max. 0.1ppm**
Acetone & Aldehydes	**Passes ACS test**		

Cat. No. 034803

Chloroform (stab./Ethanol)

Meets EP/BP spec.

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity or Alkalinity	**Passes EP/BP test**	Distillation range	**Meets the requriments**
Identification	**IR Conforms**	Cr (Chromium)	**max. 0.1ppm**
Assay (GC, corr. stabilizers)	**min. 99.8%**	Cu (Copper)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Fe (Iron)	**max. 0.1ppm**
Chloride (Cl)	**Passes EP/BP test**	Ir (Iridium)	**max. 0.1ppm**
Free Chlorine	**Passes EP/BP test**	Mn (Manganese)	**max. 0.1ppm**
Specific gravity (20°C)	**1.475-1.481**	Mo (Molybdenum)	**max. 0.1ppm**
Stabilizer (EtOH)	**0.6-1.0%w/w**	Ni (Nickel)	**max. 0.1ppm**
Water (KF)	**max. 0.01%w/w**	Os (Osmium)	**max. 0.1ppm**
Foreign Chlorine	**Passes EP/BP test**	Pd (Palladium)	**max. 0.1ppm**
Aldehydes	**Passes EP/BP test**	Pt (Platinum)	**max. 0.1ppm**
Carbon tetrachloride	**max. 0.01%v/v**	Rh (Rhodium)	**max. 0.1ppm**
Dichloromethane	**max. 0.01%**	Ru (Ruthenium)	**max. 0.1ppm**
Trichloroethene	**max. 0.01%**	V (Vanadium)	**max. 0.1ppm**
Related substance	**max. 0.2%**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 034802

Chloroform (stab./Ethanol)

CP

Appearance	**Clear colorless liquid**	Stabilizer (EtOH)	**0.5-1.5%w/v**
Assay (GC, corr. stabilizers)	**min. 99.8%**	Water (KF)	**max. 0.03%w/w**
Residue after evaporation	**max. 0.002%w/w**		

Chloroform / Isoamyl alcohol 24:1

D 1.45; UN 2810,6.1,III,T1;

Warning; H:302-315-351-373; P:260-280-281-405

Cat. No. 030723

Chloroform / Isoamyl alcohol 24:1

Molecular biology

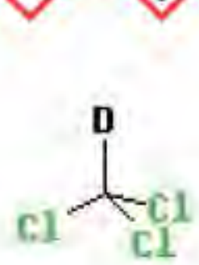
Application: Suitable for nucleic acid purification.

Appearance	**Clear solution**	DNase activity	**Not detected**
Purity of Isoamyl alcohol	**min. 99%**	RNase activity	**Not detected**
Purity of Chloroform	**min. 99.9%**	Protease activity	**Not detected**
Solvent Comp. by GC	**Complies**		

Chloroform-d, 100 atom%D

CAS [865-49-6]; EC 212-742-4; CCl_3D; M 120.38

D 1.5; m.p. -64 °C; b.p. 60.8 °C; UN 1888,6.1,III,T1



Danger H:302-315-319-331-351-372-361d; P:260-280-305+351+338-405-501

Cat. No. 303295

Chloroform-d, 100 atom%D

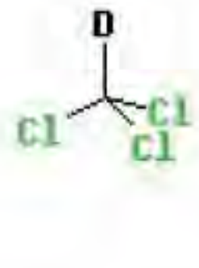
For NMR

Enrichment (NMR)	**min. 99.95Atom%D**
Water (KF)	**max. 0.01% H_2O+D_2O**

Chloroform-d, 99.8 atom%D

CAS [865-49-6]; EC 212-742-4; CCl_3D; M 120.38

D 1.5; m.p. -64 °C; b.p. 60.8 °C; UN 1888,6.1,III,T1



Danger H:302-315-319-331-351-372-361d; P:260-280-305+351+338-405-501

Cat. No. 306295

Chloroform-d, 99.8 atom%D

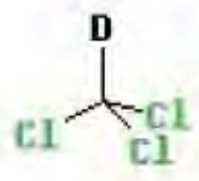
For NMR

Appearance	**Clear colorless liquid**
Enrichment (NMR)	**min. 99.8Atom%D**
Water (KF)	**max. 0.02% H_2O+D_2O**

Chloroform-d with 0.03%TMS, 99.8 atom%D

CAS [865-49-6]; EC 212-742-4; CCl_3D; M 120.38

D 1.5; m.p. -64 °C; b.p. 60.8 °C; UN 1888,6.1,III,T1



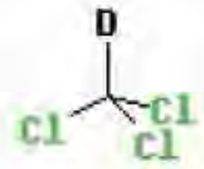
Danger H:302-315-319-331-351-372-361d; P:260-280-305+351+338-405-501

Specification continues on the next page

Cat. No. 305595

Chloroform-d w/ 0.03%TMS, 99.8 atom%D

For NMR

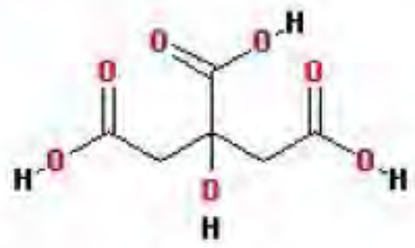


Appearance	**Clear colorless liquid**
Enrichment (NMR)	**min. 99.8Atom%D**
Water (KF)	**max. 0.02% H_2O+D_2O**
TMS Content	**0.02-0.04%v/v**

Citric acid anhydrous

CAS [77-92-9]; EC 201-069-1; $C_6H_8O_7$; M 192.13

Warning; H:319; P:264-280-305+351+338-337+313



Cat. No. 030205

Citric acid anhydrous

AR

Chloride (Cl)	**max. 0.001%**	Phosphate (PO_4)	**max. 0.001%**
Subs. darkened by Sulfuric Acid	**Passes test**	Residue after ignition	**max. 0.02%**
Iron (Fe)	**max. 0.0003%**	Assay (T)	**99.5-101%w/w**
Water insolubles	**max. 0.005%**	Lead (Pb)	**max. 0.0002%**
Sulfate (SO_4)	**max. 0.002%**	Water (KF)	**max. 0.5%w/w**
Oxalate (C_2O_4)	**max. 0.05%**		

Cat. No. 030264

Citric acid anhydrous

Meets ACS/EP/BP/USP spec.

Identification B	**IR Meets the requirements**	Sulfate (SO_4)	**max. 0.015%**
Identification E	**Meets the requirements**	Oxalic acid ($C_2H_2O_4$)	**max. 0.036%**
Appearance of solution	**Meets the requirements**	Water (KF)	**max. 1.0%w/w**
Clarity of solution	**Meets the requirements**	Carbonisable substances	**Meets the requirements**
Assay (T)	**99.5-100.5%w/w**	Sulphated ash	**max. 0.1%**
Aluminum (Al)	**max. 0.00002%**		
Heavy metals (as Pb)	**max. 0.0010%**		

Cat. No. 030223

Citric acid anhydrous

Molecular biology

Application: Useful buffering substance, pKa_1 =3.13; pKa_2=4.76; pKa_3 =6.40 at 25°C. Suitable for use in tissue culture systems requiring additives.

Chloride (Cl)	**max. 0.001%**	Water (KF)	**max. 0.5%w/w**
Subs. darkened by Sulfuric Acid	**Passes test**	DNase activity	**Not detected**
Oxalate (C2O4)	**max. 0.05%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	Protease activity	**Not detected**
Assay (T)	**min. 99.5%w/w**		

Cat. No. 030202

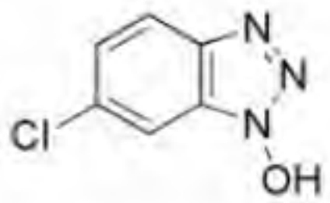
Citric acid anhydrous

CP

Appearance	**White to off-white solid**
Assay (T)	**99-101%w/w**
Water (KF)	**max. 2%w/w**

6-Cl-HOBT 15% in NMP

$C_6H_4ClN_3O$; M 169.57; D 1.08;



Danger H:315-319-335-360D; P:261-280-305+351+338-321-405

Cat. No. 308533 ***6-Cl-HOBT 15% in NMP***

Peptide synthesis

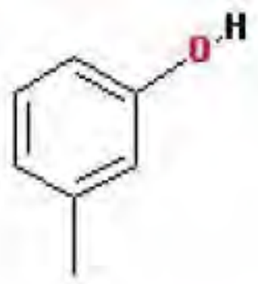
Appearance	**Yellow to brown clear liquid**
Identity NMP (GC)	**Corresponds**
Assay NMP (GC)	**min. 99.5%**
Identity 6-Cl-HOBT (HPLC)	**Corresponds**
Assay 6-Cl-HOBT (HPLC)	**14.9-15.1%w/w**
Water (KF)	**max. 0.05%w/v**

m-Cresol

Synonym: 3-Methylphenol

CAS [108-39-4]; EC 203-577-9; C_7H_8O; M 108.14

D 1.030; m.p. 11.5 °C; b.p. 203 °C; UN 2076,6.1 (8),II,TC1



Danger H:301-311-314; P:301+310-303+361+353-305+351+338-310-361

Cat. No. 031199 ***m-Cresol***

General reagent

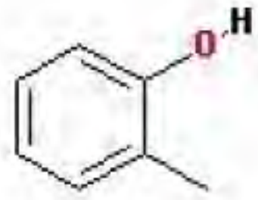
Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 98%**

o-Cresol

Synonym: 2-Methylphenol

CAS [95-48-7]; EC 202-423-8; C_7H_8O; M 108.14

D 1.05; m.p. 31 °C; b.p. 192 °C; UN 3455,6.1 (8),II,TC2



Danger H:301-311-314; P:301+310-303+361+353-305+351+338-310-361

Cat. No. 034705 ***o-Cresol***

AR

Appearance	**Clear colorless liquid**
Assay (GC, on anhydrous basis)	**min. 99%**
Water (KF)	**max. 0.2%w/w**
Phenol	**max. 0.3%**

Cat. No. 034799 ***o-Cresol***

General reagent

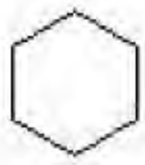
Appearance	**Clear Liquid**
Assay (GC, on anhydrous basis)	**min. 98%**

Cyclohexane

CAS [110-82-7]; EC 203-806-2; C_6H_{12}; M 84.16

D 0.779; m.p. 6.5 °C; b.p. 81 °C; UN 1145,3,II,F1

Danger H:225-304-315-336-400-410; P:210-241-301+310-303+361+353



Cat. No. 031306

Cyclohexane

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T210nm	**min. 20%**
Color (APHA)	**max. 10**	T220nm	**min. 50%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T230nm	**min. 78%**
Residue after evaporation	**max. 0.0002%w/w**	T254nm	**min. 98%**

Cat. No. 031338

Cyclohexane

Spectrofluopure

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0002%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.01%w/w**
Color (APHA)	**max. 10**	T210nm	**min. 25%**
F254nm (as Quinine)	**max. 1ppb**	T220nm	**min. 55%**
F365nm (as Quinine)	**max. 1ppb**	T230nm	**min. 82%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T254nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 031384

Cyclohexane

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0001%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Water (KF)	**max. 0.005%w/w**
Color (APHA)	**max. 10**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F254nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 2ng/L**
F365nm (as Quinine)	**max. 1ppb**	GC/NPD any Pesticide (as Parathion)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	GC/ECD volatile impu. (as E. Dibromide)	**max. 5ng/ml**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	T220nm	**min. 50%**
PAH test (<2ppb by HPLC)	**Passes test**		

(Residual trace analysis concentration 500:0.5ml)

Cat. No. 031360

Cyclohexane

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Color (APHA)	**max. 10**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 99.7%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Residue after evaporation	**max. 0.0002%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 031326

Cyclohexane

Pesti-S

Appearance	**Clear colorless liquid**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Acidity (as Acetic acid)	**max. 0.001%**	Residue after evaporation	**max. 0.0002%w/w**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Water (KF)	**max. 0.01%w/w**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**		

Cat. No. 031376

Cyclohexane

VLSI

Color (APHA)	**max. 10**	Cu (Copper)	**max. 50ppb**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Fe (Iron)	**max. 100ppb**
Water (KF)	**max. 0.01%w/w**	Ga (Gallium)	**max. 50ppb**
Acidity (as Acetic acid)	**max. 0.0002%**	K (Potassium)	**max. 50ppb**
Density (20/4°C)	**0.779-0.784gr/ml**	Li (Lithium)	**max. 50ppb**
Benzene	**max. 0.03%v/v**	Mg (Magnesium)	**max. 50ppb**
Residue after evaporation	**max. 0.001%w/w**	Mn (Manganese)	**max. 50ppb**
Chloride (Cl)	**max. 1ppm**	Mo (Molybdenum)	**max. 50ppb**
Ag (Silver)	**max. 50ppb**	Na (Sodium)	**max. 50ppb**
Al (Aluminum)	**max. 100ppb**	Ni (Nickel)	**max. 50ppb**
As (Arsenic)	**max. 50ppb**	Pb (lead)	**max. 50ppb**
Au (Gold)	**max. 50ppb**	Sb (Antimony)	**max. 50ppb**
B (Boron)	**max. 50ppb**	Sn (Tin)	**max. 50ppb**
Ba (Barium)	**max. 50ppb**	Sr (Strontium)	**max. 50ppb**
Be (Beryllium)	**max. 50ppb**	Ti (Titanium)	**max. 50ppb**
Ca (Calcium)	**max. 50ppb**	V (Vanadium)	**max. 50ppb**
Cd (Cadmium)	**max. 50ppb**	Zn (Zinc)	**max. 50ppb**
Co (Cobalt)	**max. 50ppb**	Particle count > 0.5µm	**max. 250P/ml**
Cr (Chromium)	**max. 50ppb**		

Cat. No. 031310

Cyclohexane

MOS

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 10ppb**
Acidity (as Acetic acid)	**max. 0.002%**	Fe (Iron)	**max. 30ppb**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Li (Lithium)	**max. 30ppb**
Residue after evaporation	**max. 0.0002%w/w**	Mg (Magnesium)	**max. 30ppb**
Water (KF)	**max. 0.01%w/w**	Mn (Manganese)	**max. 20ppb**
Chloride (Cl)	**max. 2ppm**	Mo (Molybdenum)	**max. 30ppb**
Ag (Silver)	**max. 20ppb**	Ni (Nickel)	**max. 20ppb**
Al (Aluminum)	**max. 20ppb**	Pb (lead)	**max. 30ppb**
As (Arsenic)	**max. 20ppb**	Sb (Antimony)	**max. 30ppb**
B (Boron)	**max. 10ppb**	Si (Silicon)	**max. 50ppb**
Ba (Barium)	**max. 20ppb**	Sn (Tin)	**max. 30ppb**
Be (Beryllium)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Cd (Cadmium)	**max. 20ppb**	V (Vanadium)	**max. 50ppb**
Co (Cobalt)	**max. 20ppb**	Zn (Zinc)	**max. 50ppb**
Cr (Chromium)	**max. 20ppb**	Particle count > 0.5µm	**max. 100P/ml**

Cat. No. 031305

Cyclohexane

AR

Appearance	**Clear colorless liquid**	Subs. darkened by Sulfuric Acid	**Passes ACS test**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.01%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Benzene	**max. 0.005%v/v**

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Cat. No. 031351

Cyclohexane

AR-S glass distilled

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cr (Chromium)	**max. 0.02ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Cu (Copper)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0005%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Water (KF)	**max. 0.01%w/w**	Mn (Manganese)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Ni (Nickel)	**max. 0.02ppm**
B (Boron)	**max. 0.02ppm**	Pb (Lead)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 031303

Cyclohexane

Meets EP/BP spec.

Appearance	**Clear liquid**	Mn (Manganese)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Mo (Molybdenum)	**max. 0.1ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Ni (Nickel)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99%**	Os (Osmium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.002%w/w**	Pd (Palladium)	**max. 0.1ppm**
Water (KF)	**max. 0.02%w/w**	Pt (Platinum)	**max. 0.1ppm**
Cr (Chromium)	**max. 0.1ppm**	Rh (Rhodium)	**max. 0.1ppm**
Cu (Copper)	**max. 0.1ppm**	Ru (Ruthenium)	**max. 0.1ppm**
Fe (Iron)	**max. 0.1ppm**	V (Vanadium)	**max. 0.1ppm**
Ir (Iridium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 031347

Cyclohexane

Extra dry

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.5%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.003%w/w**
Subs. darkened by Sulfuric Acid	**Passes test**		

Cat. No. 031302

Cyclohexane

CP

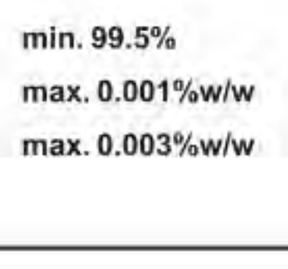
Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 99%**
Residue after evaporation	**max. 0.002%w/w**
Water (KF)	**max. 0.05%w/w**

Cyclohexane-d12, 99.5 atom%D

CAS [1735-17-7]; EC 217-077-3; C_6D_{12}; M 96.23

D 0.89; b.p. 78 °C; UN 1145,3,II,F1;

Danger H:225; P:210-240-241-280-303+361+353-501



Cat. No. 303395

Cyclohexane-d12, 99.5 atom%D

For NMR

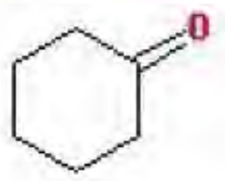
Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.03% H_2O+D_2O**

Cyclohexanone

CAS [108-94-1]; EC 203-631-1; $C_6H_{10}O$; M 98.14

D 0.947; m.p. -47 °C; b.p. 155 °C; UN 1915,3,III,F1

Warning; H:226-332; P:210-241-261-280-303+361+353



Cat. No. 033775

Cyclohexanone

Headspace

Appearance	**Clear liquid**	UV cutoff wavelength	**190-340nm**
Color (APHA)	**max. 10**	T345nm	**min. 55%**
Assay (GC, on anhydrous basis)	**min. 99.95%**	T350nm	**min. 80%**
Refractive index (20/D)	**1.445-1.455**	T380nm	**min. 97%**
Water (KF)	**max. 0.05%w/w**	Headspace test for O.V.I.	**Passes test**

Filled under inert gas.

Cat. No. 033705

Cyclohexanone

AR

Assay (GC, on anhydrous basis)	**min. 99.5%**	Residue after evaporation	**max. 0.05%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.05%w/w**
Acidity (as Acetic acid)	**max. 0.003%**		

Cat. No. 033702

Cyclohexanone

CP

Color (APHA)	**max. 20**
Assay (GC, on anhydrous basis)	**min. 99%**

Cyclopentanone

CAS [120-92-3]; EC 204-435-9; C_5H_8O; M 84.11

D 0.95; m.p. -51 °C; b.p. 130-131 °C; UN 2245,3,III,F1

Warning; H:226-315-319; P:210-241-303+361+353-305+351+338-321

Cat. No. 034402

Cyclopentanone

CP

Assay (GC, on anhydrous basis)	**min. 99%**
Residue after evaporation	**max. 0.05%w/w**
Water (KF)	**max. 0.2%w/w**

Cy3 Phosphoramidite

$C_{58}H_{70}N_4O_4PCl$; M 953.64;

Cat. No. 140524

Cy3 Phosphoramidite

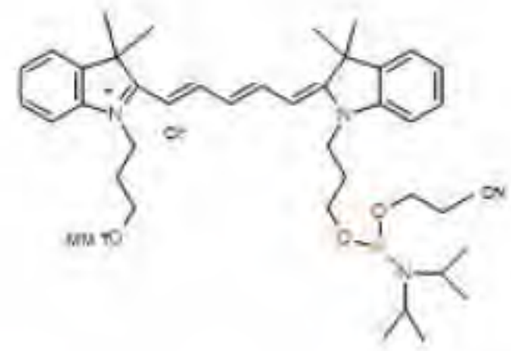
DNA synthesis

Appearance	**Pink solid**
Assay (HPLC)	**min. 90%**

See also DNA & RNA synthesis section, p. 363-418

Cy5 Phosphoramidite

$C_{60}H_{72}N_4O_4PCl$; M 979.68;



Cat. No. 140624

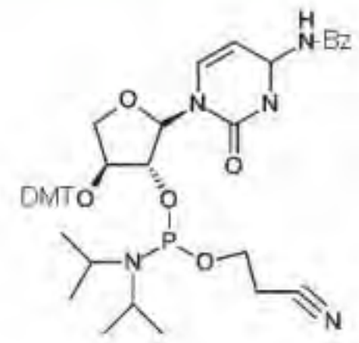
Cy5 Phosphoramidite

DNA synthesis

Appearance	**Blue solid**
Assay (HPLC)	**min. 90%**

C-TNA Phosphoramidite

$C_{48}H_{50}N_7O_7P$; M 843.9;



Cat. No. 458924

C-TNA Phosphoramidite

DNA synthesis

Appearance	**White to off-white solid**	NMR P^{31} spectrum	**Complies**
Assay (HPLC)	**min. 95%**	Solubility (0.1M in ACN)	**Complete, clear**
NMR H^1 spectrum	**Complies**		

Deblock DCA 3% for AKTA & Oligopilot II

UN 2810,6.1,III,T1;

Danger H:302-314-351; P:260-303+361+353-305+351+338-310

Cat. No. 047324

Deblock DCA 3% for AKTA & Oligopilot II

DNA synthesis

Appearance	**Clear solution**
DCA assay	**2.90-3.10%v/v**
Water (KF)	**max. 0.005%w/w**

Deblock DCA 3% in Dichloroethane

Composition: 3% Dichloroacetic acid in Dichloroethane

UN 1992,3 (6.1),II,FT1;

Danger H:225-302-315-318-335-350; P:101-102-103-210-303+361+353-305+351+338-310-405

Cat. No. 040424

Deblock DCA 3% in Dichloroethane

DNA synthesis

Appearance	**Clear solution**
DCA assay	**2.90-3.10%v/v**
Water (KF)	**max. 0.005%w/w**

See also DNA & RNA synthesis section, p. 363-418

Deblock DCA 2% in Dichloromethane

Composition: *2% Dichloroacetic acid in Dichloromethane.*

UN 2810,6.1,III,T1;

Danger H:302-314-351; P:260-303+361+353-305+351+338-310

Cat. No. 044124

Deblock DCA 2% in Dichloromethane

DNA synthesis

Appearance	**Clear solution**
DCA assay	**1.9-2.1%v/v**
Water (KF)	**max. 0.005%w/w**

Deblock DCA 3% in Dichloromethane

Composition: *3% Dichloroacetic acid in Dichloromethane.*

D 1.33; UN 2810,6.1,III,T1;

Danger H:302-315-318-351; P:280-305+351+338-310-321

Cat. No. 043124

Deblock DCA 3% in Dichloromethane

DNA synthesis

Appearance	**Clear solution**
DCA assay	**2.90-3.10%v/v**
Water (KF)	**max. 0.01%w/w**

Deblock DCA 4% in Dichloromethane

Composition: *4% Dichloroacetic acid in Dichloromethane.*

D 1.34; UN 2810,6.1,III,T1;

Danger H:315-318-351; P:280-305+351+338-310-321-405

Cat. No. 211324

Deblock DCA 4% in Dichloromethane

DNA synthesis

Appearance	**Clear solution**
DCA assay	**3.9-4.1%v/v**
Water (KF)	**max. 0.01%w/w**

Deblock DCA 5% in Dichloromethane

Composition: *5% Dichloroacetic acid in Dichloromethane.*

D 1.34; UN 2810,6.1,III,T1;

Danger H:315-318-351; P:280-305+351+338-310-321-405

Specification continues on the next page

Cat. No. 211424

Deblock DCA 5% in Dichloromethane

DNA synthesis

Appearance	**Clear solution**
DCA assay	**4.9-5.1%v/v**
Water (KF)	**max. 0.01%w/w**

Deblock DCA 6% in Dichloromethane

Composition: *6% Dichloroacetic acid in Dichloromethane.*

D 1.34; UN 2810,6.1,III,T1;

Danger H:314-315; P:260-303+361+353-305+351+338-310-405

Cat. No. 213024

Deblock DCA 6% in Dichloromethane

DNA synthesis

Appearance	**Clear solution**
DCA assay	**5.9-6.1%v/v**
Water (KF)	**max. 0.01%w/w**

Deblock DCA 2% in Toluene

Composition: *2% Dichloroacetic acid in Toluene.*

UN 1993,3,II,F1;

Danger H:225-304-315-319-336-361-373; P:210-301+310-303+361+353-305+351+338

Cat. No. 300724

Deblock DCA 2% in Toluene

DNA synthesis

Appearance	**Clear solution**
DCA assay	**1.9-2.1%v/v**
Water (KF)	**max. 0.003%w/w**

Deblock DCA 3% in Toluene

Composition: *3% Dichloroacetic acid in Toluene.*

UN 1993,3,II,F1;

Danger H:225-304-314-336-373-361d; P:301+310-303+361+353-305+351+338-310

Cat. No. 273224

Deblock DCA 3% in Toluene

DNA synthesis

Appearance	**Clear solution**
DCA assay	**2.90-3.10%v/v**
Water (KF)	**max. 0.003%w/w**

See also DNA & RNA synthesis section, p. 363-418

Deblock DCA 5% in Toluene

Composition: *5% Dichloroacetic acid in Toluene.*

D 0.91; UN 2924,3 (8),II,FC;

Danger H:225-304-314-336-373-361d; P:301+310-303+361+353-305+351+338-310-405

Cat. No. 273324

Deblock DCA 5% in Toluene

DNA synthesis

Appearance	**Clear solution**
DCA assay	**4.90-5.10%v/v**
Water (KF)	**max. 0.005%w/w**

Deblock DCA 10% in Toluene

Composition: *10% Dichloroacetic acid in Toluene.*

D 0.94; UN 2924,3+8,II,FC;

Danger H:225-304-314-336-373-361d; P:301+310-303+361+353-305+351+338-310

Cat. No. 275324

Deblock DCA 10% in Toluene

DNA synthesis

Appearance	**Clear solution**
DCA assay	**9.90-10.1%v/v**
Water (KF)	**max. 0.005%w/w**

Deblock TCA 2.5% in Dichloroethane

Composition: *2.5% Trichloroacetic acid in Dichloroethane.*

Cat. No. 211524

Deblock TCA 2.5% in Dichloroethane

DNA synthesis

Appearance	**Clear solution**
TCA assay	**2.40-2.60%w/v**
Water (KF)	**max. 0.005%w/w**

Deblock TCA 3% in Dichloroethane

Composition: *3% Trichloroacetic acid in Dichloroethane.*

D 1.26; UN 2929,6.1 + 3,II,TF1;

Danger H:226-302-315-318-335-350-411; P:210-303+361+353-305+351+338-310

Specification continues on the next page

Cat. No. 043324

Deblock TCA 3% in Dichloroethane

DNA synthesis

Appearance	**Clear solution**
TCA assay	**2.90-3.10%w/v**
Water (KF)	**max. 0.005%w/w**

Deblock TCA 2% in Dichloromethane

Composition: *2% Trichloroacetic acid in Dichloromethane.*

D 1.33; UN 2810,6.1,III,T1;

Danger H:315-318-335-336-351-411; P:261-305+351+338-310-321

Cat. No. 043224

Deblock TCA 2% in Dichloromethane

DNA synthesis

Appearance	**Clear solution**
TCA assay	**1.8-2.2%w/v**
Water (KF)	**max. 0.01%w/w**

Deblock TCA 3% in Dichloromethane

Composition: *3% Trichloroacetic acid in Dichloromethane.*

D 1.33; UN 2810,6.1,III,T1;

Danger H:315-318-335-336-351-411; P:261-305+351+338-310-321

Cat. No. 041324

Deblock TCA 3% in Dichloromethane

DNA synthesis

Appearance	**Clear solution**
TCA assay	**2.90-3.10%w/v**
Water (KF)	**max. 0.005%w/w**

Deblock TCA 3% in Toluene

Composition: *3% Trichloroacetic acid in Toluene*

D 0.89; UN 1993,3,II,F1;

Danger H:225-315-318-336-361-373-411; P:301+310-303+361+353-305+351+338-310

Cat. No. 300624

Deblock TCA 3% in Toluene

DNA synthesis

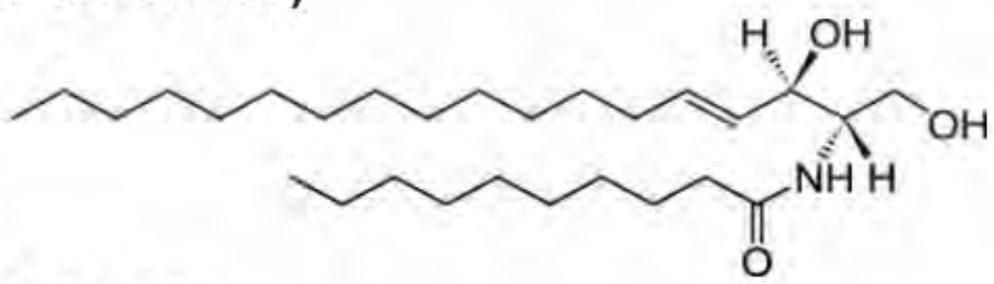
Appearance	**Clear solution**
TCA assay	**2.9-3.1%w/v**
Water (KF)	**max. 0.003%w/w**

See also DNA & RNA synthesis section, p. 363-418

N-Decanoyl-D-erythro-Sphingosine (C10 Ceramide)

Synonym: *Ceramide 10; N-(decanoyl)-sphing-4-enine.*

CAS [111122-57-7]; $C_{28}H_{55}NO_3$; M 453.7;



Cat. No. 039980

N-Decanoyl-D-erythro-Sphingosine (C10 Ceramide)

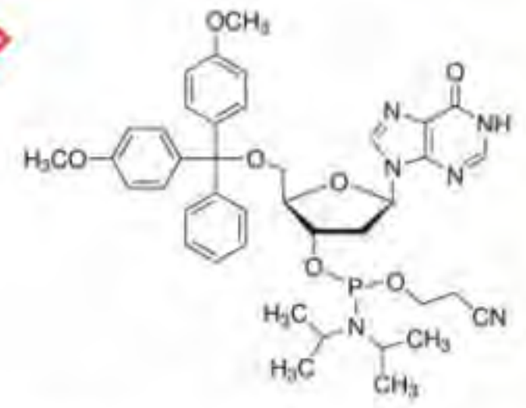
For synthesis

Appearance	**White to-off white solid**	Purity (TLC)	**min. 98%**
Assay (HPLC)	**min. 98%**	NMR H^1 spectrum	**Conforms with structure**

2'-deoxylnosine phosphoramidite

CAS [141684-35-7]; $C_{40}H_{47}N_6O_7P$; M 754.79;

Warning; H:302-312-319-332; P:261-280-301+312-305+351+338-322



Cat. No. 054824

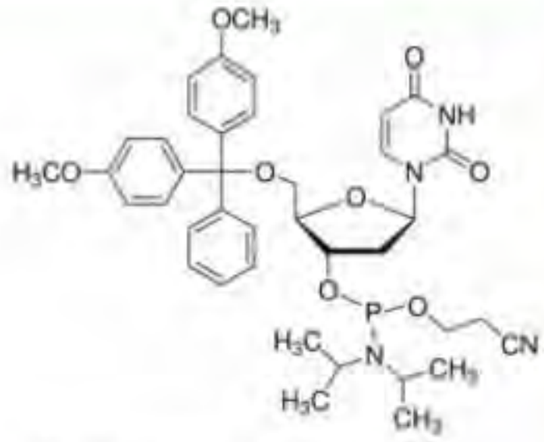
2'-deoxylnosine phosphoramidite

DNA synthesis

Appearance	**White to off-white solid**	NMR P^{31} spectrum	**Conforms to structure**
Assay (HPLC)	**min. 95%**	Solubility (0.1M in ACN)	**Complete, clear**
NMR H^1 spectrum	**Conforms to structure**		

2'-deoxyUridine phosphoramidite

$C_{39}H_{47}N_4O_8P$; M 730.81;



Cat. No. 055424

2'-deoxyUridine phosphoramidite

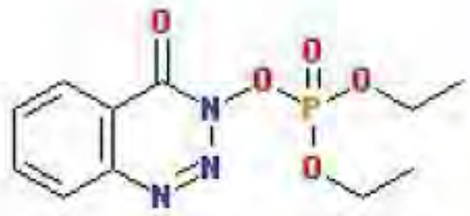
DNA synthesis

Appearance	**White to off-white solid**	NMR P^{31} spectrum	**Conforms to structure**
Assay (HPLC)	**min. 95%**	Solubility (0.1M in ACN)	**Complete, clear**
NMR H^1 spectrum	**Conforms to structure**		

DEPBT

Synonym: *3-(Diethoxyphosphoryloxy)-1,2,3-benzotriazin-4(3H)-one*

CAS [165534-43-0]; $C_{11}H_{14}N_3O_5P$; M 299.22;



Cat. No. 300933

DEPBT

Peptide synthesis

Appearance	**White to off-white solid**	Purity (HPLC)	**98.5-100.0%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	Loss on drying (105°C)	**max. 0.5%**
Melting point	**72.0-77.0°C**		

Deuterium oxide-d2, 100 atom%D

CAS [7789-20-0]; EC 232-148-9; D_2O; M 20.02

D 1.1; m.p. 3.8 °C; b.p. 101.3 °C;

Cat. No. 306395

Deuterium oxide-d2, 100 atom%D

For NMR

Appearance	**Clear colorless liquid**
Enrichment (NMR)	**min. 99.98Atom%D**

Deuterium oxide-d2, 99.8 atom%D

CAS [7789-20-0]; EC 232-148-9; D_2O; M 20.02

D 1.1; m.p. 3.8 °C; b.p. 101.3 °C;

Cat. No. 305795

Deuterium oxide-d2, 99.8 atom%D

For NMR

Appearance	**Clear colorless liquid**
Enrichment (NMR)	**min. 99.8Atom%D**

Dextran sulfate sodium salt

CAS [9011-18-1]; M ~500KD;

Cat. No. 044423

Dextran sulfate sodium salt

Molecular biology

Application: Commonly used as accelerator of the hybridization rate of DNA or RNA bound to membranes, may be used in Southern and Northern blotting procedures.

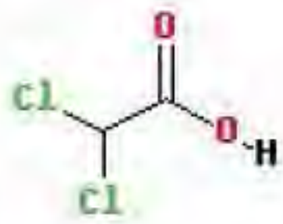
Appearance	**Almost white powder**	pH (1% in water)	**5.0-7.2**
Chloride (Cl)	**max. 0.1%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.001%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.005%**	Protease activity	**Not detected**

Dichloroacetic acid

CAS [79-43-6]; EC 201-207-0; Cl_2CHCO_2H; M 128.94

D 1.56; m.p. 9-11 °C; b.p. 194 °C; UN 1764,8,II,C3

Danger H:314-400; P:260-303+361+353-305+351+338-310



Cat. No. 041024

Dichloroacetic acid

DNA synthesis

Appearance	**Clear colorless liquid**
Assay (T)	**min. 99.5%w/w**
Water (KF)	**max. 0.1%w/w**

Cat. No. 041033

Dichloroacetic acid

Peptide synthesis

Appearance	**Clear colorless liquid**
Assay (T)	**min. 99.5%w/w**
Water (KF)	**max. 0.1%w/w**

1,2-Dichloroethane

Synonym: *Ethylene chloride, Ethylene dichloride, 1,2-Dichloroethane*

CAS [107-06-2]; EC 203-458-1; $C_2H_4Cl_2$; M 98.96

D 1.25; m.p. -35 °C; b.p. 81 - 85 °C; UN 1184,3(6.1),II,FT1

Danger H:225-302-315-319-335-350; P:210-241-303+361+353-305+351+338

Cat. No. 040506

1.2-Dichloroethane

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.03%w/w**
Acidity (as HCl)	**max. 0.002%**	T230nm	**min. 20%**
Color (APHA)	**max. 10**	T240nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T280nm	**min. 99%**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 040510

1.2-Dichloroethane

MOS

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 10ppb**
Acidity (as HCl)	**max. 0.001%**	Fe (Iron)	**max. 50ppb**
Color (APHA)	**max. 10**	Li (Lithium)	**max. 30ppb**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Mg (Magnesium)	**max. 30ppb**
Residue after evaporation	**max. 0.0005%w/w**	Mn (Manganese)	**max. 20ppb**
Water (KF)	**max. 0.03%w/w**	Mo (Molybdenum)	**max. 30ppb**
Chloride (Cl)	**max. 2ppm**	Ni (Nickel)	**max. 20ppb**
Ag (Silver)	**max. 20ppb**	Pb (lead)	**max. 30ppb**
Al (Aluminum)	**max. 20ppb**	Sb (Antimony)	**max. 30ppb**
As (Arsenic)	**max. 10ppb**	Si (Silicon)	**max. 50ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 30ppb**
Ba (Barium)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Be (Beryllium)	**max. 20ppb**	V (Vanadium)	**max. 50ppb**
Cd (Cadmium)	**max. 20ppb**	Zn (Zinc)	**max. 50ppb**
Co (Cobalt)	**max. 20ppb**	Particle count > 0.5µm	**max. 100P/ml**
Cr (Chromium)	**max. 20ppb**		

Cat. No. 040505

1.2-Dichloroethane

AR

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as HCl)	**max. 0.001%**	Reducing substances (as O)	**max. 0.001%**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.03%w/w**
Assay (GC, on anhydrous basis)	**min. 99.7%**		

Cat. No. 040551

1,2-Dichloroethane

AR-S glass distilled

Assay (GC, on anhydrous basis)	**min. 99.9%**	Cr (Chromium)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cu (Copper)	**max. 0.02ppm**
Acidity (as HCl)	**max. 0.001%**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0005%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Water (KF)	**max. 0.01%w/w**	Mn (Manganese)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Ni (Nickel)	**max. 0.02ppm**
B (Boron)	**max. 0.02ppm**	Pb (Lead)	**max. 0.05ppm**
Ba (Barium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**
Cd (Cadmium)	**max. 0.05ppm**	Reducing substances (as O)	**max. 0.001%**
Co (Cobalt)	**max. 0.02ppm**		

Cat. No. 040547

1,2-Dichloroethane

Extra dry

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as HCl)	**max. 0.001%**	Water (KF)	**max. 0.01%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**		

Cat. No. 040553

1,2-Dichloroethane

Extra dry / M. sieves

Acidity (as HCl)	**max. 0.001%**
Assay (GC, on anhydrous basis)	**min. 99.8%**
Residue after evaporation	**max. 0.001%w/w**
Water (KF)	**max. 0.005%w/w**

Cat. No. 040524

1,2-Dichloroethane

DNA synthesis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as HCl)	**max. 0.002%**	Water (KF)	**max. 0.005%w/w**
Color (APHA)	**max. 10**		
Assay (GC, on anhydrous basis)	**min. 99.8%**		

Cat. No. 040502

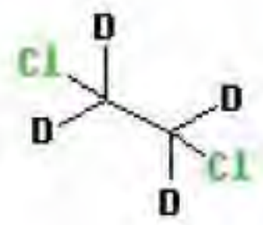
1,2-Dichloroethane

CP

Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 99%**
Residue after evaporation	**max. 0.002%w/w**
Water (KF)	**max. 0.05%w/w**

1,2-Dichloroethane-d4, 99 atom%D

CAS [17060-07-0]; $C_2D_4Cl_2$; M 102.98; D 1.31



Danger H:225-302-315-319-335-350; P:210-241-303+361+353-305+351+338-405-501

Cat. No. 303595

1,2-Dichloroethane-d4, 99 atom%D

For NMR

Enrichment (NMR)	**min. 98Atom%D**

Dichloromethane (stab. Amylene)

Synonym: *Methylene chloride*

CAS [75-09-2]; EC 200-838-9; CH_2Cl_2; M 84.93

D 1.325; m.p. -97 °C; b.p. 39-40 °C; UN 1593,6.1,III,T1

Warning; H:351; P:201-202-280-308+313-405-501

Cat. No 137906

Dichloromethane (stab. Amylene)

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as HCl)	**max. 0.001%**	T235nm	**min. 40%**
Color (APHA)	**max. 10**	T240nm	**min. 78%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T245nm	**min. 90%**
Residue after evaporation	**max. 0.0003%w/w**	T260nm	**min. 99%**
Stabilizer (Amylene)	**0.003-0.006%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 137938

Dichloromethane (stab. Amylene)

Spectrofluopure

Appearance	**Clear colorless liquid**	Stabilizer (Amylene)	**0.003-0.006%w/w**
Acidity (as HCl)	**max. 0.001%**	Water (KF)	**max. 0.01%w/w**
Color (APHA)	**max. 10**	T235nm	**min. 40%**
F254nm (as Quinine)	**max. 1ppb**	T240nm	**min. 80%**
F365nm (as Quinine)	**max. 1ppb**	T245nm	**min. 90%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T260nm	**min. 99%**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 137984

Dichloromethane (stab. Amylene)

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**
Color (APHA)	**max. 10**	GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**
Assay (GC, on anhydrous basis)	**min. 99.9%**	PAH test (<2ppb by HPLC)	**Passes test**
Acidity (as HCl)	**max. 0.0005%**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Residue after evaporation	**max. 0.0003%w/w**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Stabilizer (Amylene)	**0.003-0.006%w/w**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Water (KF)	**max. 0.02%w/w**	Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
F254nm (as Quinine)	**max. 1ppb**	T235nm	**min. 40%**
F365nm (as Quinine)	**max. 1ppb**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 137960

Dichloromethane (stab. Amylene)

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	Stabilizer (Amylene)	**0.003-0.006%w/w**
Acidity (as HCl)	**max. 0.001%**	Water (KF)	**max. 0.02%w/w**
Color (APHA)	**max. 10**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 99.9%**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Residue after evaporation	**max. 0.0005%w/w**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 137926

Dichloromethane (stab. Amylene)

Pesti-S

Appearance	**Clear colorless liquid**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Acidity (as HCl)	**max. 0.001%**	Residue after evaporation	**max. 0.0002%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Stabilizer (Amylene)	**0.003-0.006%w/w**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**	Water (KF)	**max. 0.02%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 137910

Dichloromethane (stab. Amylene)

MOS

Appearance	**Clear colorless liquid**	Cr (Chromium)	**max. 20ppb**
Acidity (as Acetic acid)	**max. 0.002%**	Cu (Copper)	**max. 10ppb**
Color (APHA)	**max. 10**	Fe (Iron)	**max. 50ppb**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Li (Lithium)	**max. 30ppb**
Residue after evaporation	**max. 0.0005%w/w**	Mg (Magnesium)	**max. 30ppb**
Stabilizer (Amylene)	**0.003-0.006%w/w**	Mn (Manganese)	**max. 20ppb**
Water (KF)	**max. 0.05%w/w**	Mo (Molybdenum)	**max. 30ppb**
Chloride (Cl)	**max. 2ppm**	Ni (Nickel)	**max. 20ppb**
Ag (Silver)	**max. 20ppb**	Pb (lead)	**max. 30ppb**
Al (Aluminum)	**max. 20ppb**	Sb (Antimony)	**max. 30ppb**
As (Arsenic)	**max. 20ppb**	Si (Silicon)	**max. 50ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 30ppb**
Ba (Barium)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Be (Beryllium)	**max. 20ppb**	V (Vanadium)	**max. 50ppb**
Cd (Cadmium)	**max. 20ppb**	Zn (Zinc)	**max. 50ppb**
Co (Cobalt)	**max. 20ppb**	Particle count > 0.5µm	**max. 100P/ml**

Cat. No. 137905

Dichloromethane (stab. Amylene)

AR

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.9%**
Acidity (as HCl)	**max. 0.001%**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 10**	Stabilizer (Amylene)	**0.003-0.006%w/w**
Free Chlorine	**Passes test, negative**	Water (KF)	**max. 0.02%w/w**

Cat. No. 137951

Dichloromethane (stab. Amylene)

AR-S glass distilled

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as HCl)	**max. 0.001%**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cr (Chromium)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Cu (Copper)	**max. 0.02ppm**
Residue after evaporation	**max. 0.0005%w/w**	Fe (Iron)	**max. 0.1ppm**
Stabilizer (Amylene)	**0.003-0.006%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Free Chlorine	**Pases test, negative**	Mn (Manganese)	**max. 0.02ppm**
Water (KF)	**max. 0.02%w/w**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**		

Cat. No. 137903

Dichloromethane (stab. Amylene)

Meets EP/BP spec.

Appearance	**Clear colorless liquid**	Total of other impurities	**max. 0.1%v/v**
Identification B	**Passes EP/BP test**	Cr (Chromium)	**max. 0.1ppm**
Identification C	**Passes EP/BP test**	Cu (Copper)	**max. 0.1ppm**
Acidity (0.1M NaOH)	**max. 0.15ml**	Fe (Iron)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Ir (Iridium)	**max. 0.1ppm**
Free Chlorine	**Passes EP/BP test**	Mn (Manganese)	**max. 0.1ppm**
Relative density (20°C)	**1.320-1.332**	Mo (Molybdenum)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Ni (Nickel)	**max. 0.1ppm**
Heavy metals (as Pb)	**max. 0.0001%**	Os (Osmium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.002%w/w**	Pd (Palladium)	**max. 0.1ppm**
Refractive index (20/D)	**1.423-1.425**	Pt (Platinum)	**max. 0.1ppm**
Water (KF)	**max. 0.02%w/w**	Rh (Rhodium)	**max. 0.1ppm**
Amylene (2-Methyl-2-Butene)	**0.003-0.03%v/v**	Ru (Ruthenium)	**max. 0.1ppm**
Ethanol	**max. 0.15%v/v**	V (Vanadium)	**max. 0.1ppm**
Carbon tetrachloride	**max. 0.001%v/v**	Zn (Zinc)	**max. 0.1ppm**
Chloroform	**max. 0.005%v/v**		

Cat. No. 137936

Dichloromethane (stab. Amylene)

Meets USP spec.

Appearance	**Clear colorless liquid**	Ir (Iridium)	**max. 0.1ppm**
Identity (IR)	**Passes USP test**	Mn (Manganese)	**max. 0.1ppm**
Specific gravity	**1.318-1.322**	Mo (Molybdenum)	**max. 0.1ppm**
Free Chlorine	**Passes USP test**	Ni (Nickel)	**max. 0.1ppm**
Acidity (as HCl)	**max. 0.001%**	Os (Osmium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Pd (Palladium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.002%w/w**	Pt (Platinum)	**max. 0.1ppm**
Water (KF)	**max. 0.02%w/w**	Rh (Rhodium)	**max. 0.1ppm**
Amylene (2-Methyl-2-Butene)	**0.003-0.006%v/v**	Ru (Ruthenium)	**max. 0.1ppm**
Cr (Chromium)	**max. 0.1ppm**	V (Vanadium)	**max. 0.1ppm**
Cu (Copper)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Fe (Iron)	**max. 0.1ppm**		

Cat. No. 137947

Dichloromethane (stab. Amylene)

Extra dry

Appearance	**Clear colorless liquid**	Stabilizer (Amylene)	**0.003-0.006%w/w**
Acidity (as HCl)	**max. 0.001%**	Water (KF)	**max. 0.005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 137953

Dichloromethane (stab. Amylene)

Extra dry / M. sieves

Acidity (as HCl)	**max. 0.001%**	Stabilizer (Amylene)	**0.003-0.006%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Water (KF)	**max. 0.005%w/w**
Residue after evaporation	**max. 0.001%w/w**		

Cat. No. 137954

Dichloromethane (stab. Amylene)

Extra dry, DNA synthesis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as HCl)	**max. 0.0004%**	Stabilizer (Amylene)	**0.003-0.006%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.003%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**		

Cat. No. 137933

Dichloromethane (stab. Amylene)

Peptide synthesis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.005%w/w**
Color (APHA)	**max. 10**	Fe (Iron)	**max. 0.1ppm**
Free Amines (Kaiser)	**max. 0.001%**	Mg (Magnesium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Pb (Lead)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0005%w/w**	Zn (Zinc)	**max. 0.1ppm**
Stabilizer (Amylene)	**0.003-0.006%w/w**		

Cat. No. 137902

Dichloromethane (stab. Amylene)

CP

Appearance	**Clear colorless liquid**	Stabilizer (Amylene)	**0.003-0.006%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Water (KF)	**max. 0.05%w/w**
Residue after evaporation	**max. 0.003%w/w**		

Dichloromethane (stab.Ethanol)

Synonym: *Methylene chloride*

CAS [75-09-2]; EC 200-838-9; CH_2Cl_2; M 84.93

D 1.325; m.p. -97 °C; b.p. 39 - 40 °C; UN 1593,6.1,III,T1

Warning; H:351; P:201-202-280-308+313-405-501

Cat. No. 138078

Dichloromethane (stab.Ethanol)

LC-MS

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as HCl)	**max. 0.001%**	Co (Cobalt)	**max. 0.05ppm**
Color (APHA)	**max. 10**	Cr (Chromium)	**max. 0.02ppm**
Assay (Corr. stabilizer/s)	**min. 99.9%**	Cu (Copper)	**max. 0.02ppm**
Residue after evaporation	**max. 0.0003%w/w**	Fe (Iron)	**max. 0.02ppm**
Stabilizer (EtOH)	**0.05-0.15%w/v**	K (Potassium)	**max. 0.05ppm**
Water (KF)	**max. 0.02%w/w**	Li (Lithium)	**max. 0.1ppm**
MS-ESI+ (as Reserpine)	**max. 50ppb**	Mg (Magnesium)	**max. 0.05ppm**
T240nm	**min. 75%**	Mn (Manganese)	**max. 0.02ppm**
T245nm	**min. 90%**	Mo (Molybdenum)	**max. 0.05ppm**
T260nm	**min. 99%**	Na (Sodium)	**max. 0.05ppm**
Ag (Silver)	**max. 0.1ppm**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.05ppm**	Pb (Lead)	**max. 0.02ppm**
Ba (Barium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.05ppm**
Bi (Bismuth)	**max. 0.1ppm**	Sr (Strontium)	**max. 0.05ppm**
Ca (Calcium)	**max. 0.05ppm**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 138006

Dichloromethane (stab.Ethanol)

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.02%w/w**
Acidity (as HCl)	**max. 0.001%**	T235nm	**min. 40%**
Color (APHA)	**max. 10**	T240nm	**min. 78%**
Assay (Corr. stabilizer/s)	**min. 99.9%**	T245nm	**min. 90%**
Residue after evaporation	**max. 0.0003%w/w**	T260nm	**min. 99%**
Stabilizer (EtOH)	**0.05-0.15%w/v**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 138084

Dichloromethane (stab.Ethanol)

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**
Color (APHA)	**max. 10**
Assay (Corr. stabilizer/s)	**min. 99.9%**
Acidity (as HCl)	**max. 0.001%**
Residue after evaporation	**max. 0.0003%w/w**
Stabilizer (EtOH)	**0.05-0.15%w/v**
Water (KF)	**max. 0.02%w/w**
F254nm (as Quinine)	**max. 1ppb**
F365nm (as Quinine)	**max. 1ppb**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**
PAH test (<2ppb by HPLC)	**Passes test**
GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
T235nm	**min. 40%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 138026

Dichloromethane (stab.Ethanol)

Pesti-S

Appearance	**Clear colorless liquid**
Acidity (as HCl)	**max. 0.001%**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Assay (Corr. stabilizer/s)	**min. 99.9%**
Residue after evaporation	**max. 0.0005%w/w**
Stabilizer (EtOH)	**0.05-0.15%w/v**
Water (KF)	**max. 0.01%w/w**

Cat. No. 138005

Dichloromethane (stab.Ethanol)

AR

Appearance	**Clear colorless liquid**
Acidity (as HCl)	**max. 0.001%**
Color (APHA)	**max. 10**
Assay (Corr. stabilizer/s)	**min. 99.9%**
Residue after evaporation	**max. 0.0005%w/w**
Stabilizer (EtOH)	**0.05-0.15%w/v**
Water (KF)	**max. 0.02%w/w**

Cat. No. 138003

Dichloromethane (stab.Ethanol)

Meets EP/BP spec.

Appearance	**Clear colorless liquid**
Identification B	**Passes EP/BP test**
Identification C	**Passes EP/BP test**
Acidity (0.1M NaOH)	**max. 0.15ml**
Color (APHA)	**max. 10**
Free Chlorine	**Passes EP/BP test**
Relative density (20°C)	**1.320-1.332**
Assay (Corr. stabilizer/s)	**min. 99.9%**
Heavy metals (as Pb)	**max. 0.0001%**
Residue after evaporation	**max. 0.002%w/w**
Refractive index (20/D)	**1.423-1.425**
Water (KF)	**max. 0.02%w/w**
Ethanol	**0.08-0.25%v/v**
Carbon tetrachloride	**max. 0.001%v/v**
Chloroform	**max. 0.005%v/v**
Total of other impurities	**max. 0.1%v/v**
Cr (Chromium)	**max. 0.1ppm**
Cu (Copper)	**max. 0.1ppm**
Fe (Iron)	**max. 0.1ppm**
Ir (Iridium)	**max. 0.1ppm**
Mn (Manganese)	**max. 0.1ppm**
Mo (Molybdenum)	**max. 0.1ppm**
Ni (Nickel)	**max. 0.1ppm**
Os (Osmium)	**max. 0.1ppm**
Pd (Palladium)	**max. 0.1ppm**
Pt (Platinum)	**max. 0.1ppm**
Rh (Rhodium)	**max. 0.1ppm**
Ru (Ruthenium)	**max. 0.1ppm**
V (Vanadium)	**max. 0.1ppm**
Zn (Zinc)	**max. 0.1ppm**

Cat. No. 138033

Dichloromethane (stab.Ethanol)

Peptide synthesis

Appearance	**Clear colorless liquid**
Color (APHA)	**max. 10**
Free Amines (Kaiser)	**max. 0.001%**
Assay (Corr. stabilizer/s)	**min. 99.9%**
Residue after evaporation	**max. 0.0005%w/w**
Stabilizer (EtOH)	**0.05-0.15%w/v**
Water (KF)	**max. 0.01%w/w**
Fe (Iron)	**max. 0.1ppm**
Mg (Magnesium)	**max. 0.1ppm**
Pb (Lead)	**max. 0.1ppm**
Zn (Zinc)	**max. 0.1ppm**

Cat. No. 138002

Dichloromethane (stab.Ethanol)

CP

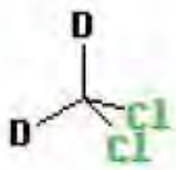
Appearance	**Clear colorless liquid**	Stabilizer (EtOH)	**0.05-0.15%w/v**
Assay (Corr. stabilizer/s)	**min. 99.5%**	Water (KF)	**max. 0.05%w/w**
Residue after evaporation	**max. 0.003%w/w**		

Dichloromethane-d2, 100 atom%D

CAS [1665-00-5]; EC 216-776-0; CCl_2D_2; M 86.94

D 1.36; b.p. 39 °C; UN 1593,6.1,III,T1;

Danger H:302-315-319-335-350-361; P:261-280-305+351+338-405-501



Cat. No. 303895

Dichloromethane-d2, 100 atom%D

For NMR

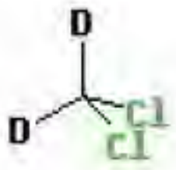
Enrichment (NMR)	**min. 99.95Atom%D**
Water (KF)	**max. 0.01% H_2O+D_2O**

Dichloromethane-d2, 99.9 atom%D

CAS [1665-00-5]; EC 216-776-0; CCl_2D_2; M 86.94

D 1.36; b.p. 39 °C; UN 1593,6.1,III,T1;

Danger H:302-315-319-335-350-361; P:261-280-305+351+338-405-501



Cat. No. 303795

Dichloromethane-d2, 99.9 atom%D

For NMR

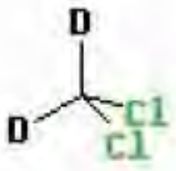
Enrichment (NMR)	**min. 99.9Atom%D**
Water (KF)	**max. 0.015% H_2O+D_2O**

Dichloromethane-d2, 99.8 atom%D

CAS [1665-00-5]; EC 216-776-0; CCl_2D_2; M 86.94

D 1.36; b.p. 39 °C; UN 1593,6.1,III,T1;

Danger H:302-315-319-335-350-361; P:261-280-305+351+338-405-501



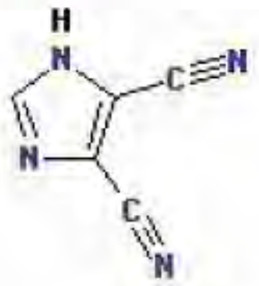
Cat. No. 305995

Dichloromethane-d2, 99.8 atom%D

For NMR

Appearance	**Clear colorless liquid**
Enrichment (NMR)	**min. 99.8Atom%D**
Water (KF)	**max. 0.02% H_2O+D_2O**

4,5-Dicyanoimidazole



Synonym: *4,5-Imidazoledicarbonitrile; DCI*

CAS [1122-28-7]; EC 214-344-6; $C_5H_2N_4$; M 118.1

Warning; H:302; P:264-270-301+312-330

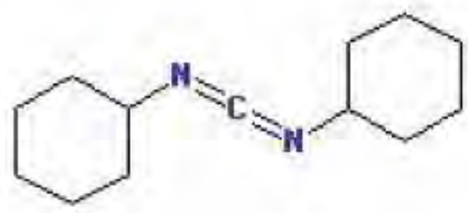
Cat. No. 045224

4,5-Dicyanoimidazole

DNA synthesis

Appearance	**White to off white powder**
Assay (T)	**99.5-100.5%w/w**
Purity DCI (HPLC)	**min. 99.5%**
Solubility (0.25M in ACN)	**Clear solution**
Water (KF)	**max. 0.05%w/w**

N,N'-Dicyclohexylcarbodiimide



Synonym: *DCC*

CAS [538-75-0]; EC 208-704-1; $C_{13}H_{22}N_2$; M 206.33

Danger H:302-311-317-318; P:305+351+338-310-321-361

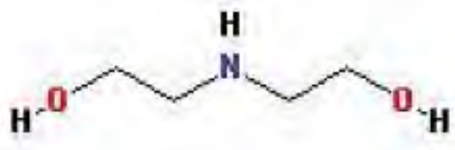
Cat. No. 040733

N,N'-Dicyclohexylcarbodiimide

Peptide synthesis

Appearance	**Pale yellow to off-white mass**
Solubility (10% W/V in DCM)	**Clear solution**
Assay (GC, on anhydrous basis)	**min. 99%**

Diethanolamine



CAS [111-42-2]; EC 203-868-0; $C_4H_{11}NO_2$; M 105.14

Danger H:302-315-318-373;

Cat. No. 040705

Diethanolamine

AR

Appearance	**Clear, viscous liquid**	Apparent equivalent weight	**104.0-106.0**
Assay (GC, on anhydrous basis)	**min. 98.5%**	Residue after ignition	**max. 0.005%**
Color (APHA)	**max. 15**	Triethanolamine	**max. 1.0%**
Water (KF)	**max. 0.15%w/w**	2-Aminoethanol	**max. 1.0%**

Diethylamine

Synonym: *N-Ethylethanamine*

CAS [109-89-7]; EC 203-716-3; $C_4H_{11}N$; M 73.14

D 0.71; m.p. -50 °C; b.p. 56 °C; UN 1154,3 (8),II,FC

Danger H:225-302-312-314-332; P:210-303+361+353-305+351+338-310-405

Specification continues on the next page

Cat. No. 271805

Diethylamine

AR

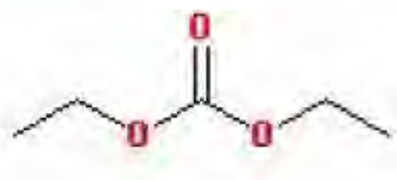
Assay (GC, on anhydrous basis)	**min. 99.5%**	Ethanolamine	**max. 0.3%**
Color (APHA)	**max. 20**	Triethylamine	**max. 0.3%**
Ethylamine	**max. 0.3%**	Water (KF)	**max. 0.1%w/w**
Triethanolamine	**max. 0.3%**		

Diethyl carbonate

CAS [105-58-8]; EC 203-311-1; $C_5H_{10}O_3$; M 118.13

D 0.97; m.p. -43 °C; b.p. 126 °C; UN 2366,3,III,F1

Warning; H:226; P:210-240-241-280-303+361+353-501



Cat. No. 043599

Diethyl carbonate

General reagent

Appearance	**Clear solution**
DCA assay	**2.9-3.1%v/v**
Water (KF)	**max. 0.003%w/w**

Diethylene glycol

Synonym: 2,2n"÷-Oxydiethanol, 2-Hydroxyethyl ether, Bis(2-hydroxyethyl) ether, Diglycol.

CAS [111-46-6]; EC 203-872-2; $C_4H_{10}O_3$; M 106.12

D 1.12; m.p. -10 °C; b.p. 245 °C;

Warning; H:302; P:264-270-301+312-330

Cat. No. 045499

Diethylene glycol

General reagent

Acidity (as Lactic Acid)	**max. 0.05%**	Assay (GC, on anhydrous basis)	**min. 99%**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.03%w/w**
Density (20/4°C)	**1.03-1.04gr/ml**		

Diethylether (stab./BHT)

Synonym: Ether, Ethyl ether

CAS [60-29-7]; EC 200-467-2; $C_4H_{10}O$; M 74.12

D 0.714; m.p. -116 °C; b.p. 34.6 °C; UN 1155,3,I,F1

Danger H:224-302-336; EUH:019-066; P:210-241-261-303+361+353

Cat. No. 052805

Diethylether (stab./BHT)

AR

Appearance	**Clear colorless liquid**	Methanol	**max. 0.02%**
Acidity (as Acetic acid)	**max. 0.002%**	Acetone	**max. 0.005%**
Color (APHA)	**max. 5**	Peroxides (as H_2O_2)	**max. 0.0001%**
Carbonyl compounds (as HCHO)	**max. 0.001%w/w**	Residue after evaporation	**max. 0.0005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Stabilizer (BHT)	**0.0007-0.001%w/w**
Ethanol	**max. 0.05%**	Water (KF)	**max. 0.05%w/w**

Cat. No. 052803

Diethylether (stab./BHT)

Meets EP/BP spec.

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 0.1ppm**
Identification A	**Passes EP/BP test**	Fe (Iron)	**max. 0.1ppm**
Identification B	**Passes EP/BP test**	Ir (Iridium)	**max. 0.1ppm**
Relative density (20°C)	**0.714-0.716**	Mn (Manganese)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Mo (Molybdenum)	**max. 0.1ppm**
Residue after evaporation	**max. 0.002%w/w**	Ni (Nickel)	**max. 0.1ppm**
Stabilizer (BHT)	**0.0007-0.001%w/w**	Os (Osmium)	**max. 0.1ppm**
Water (KF)	**max. 0.2%w/w**	Pd (Palladium)	**max. 0.1ppm**
Foreign Odor	**Passes EP/BP test**	Pt (Platinum)	**max. 0.1ppm**
Aldehydes	**Passes EP/BP test**	Rh (Rhodium)	**max. 0.1ppm**
Distillation range	**Passes EP/BP test**	Ru (Ruthenium)	**max. 0.1ppm**
Acidity	**Passes EP/BP test**	V (Vanadium)	**max. 0.1ppm**
Peroxides	**Passes EP/BP test**	Zn (Zinc)	**max. 0.1ppm**
Cr (Chromium)	**max. 0.1ppm**		

Cat. No. 052859

Diethylether (stab./BHT)

Supra dry

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Stabilizer (BHT)	**0.0007-0.001%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Water (KF)	**max. 0.001%w/w**
Peroxides (as H_2O_2)	**max. 0.0005%**		

Cat. No. 052847

Diethylether (stab./BHT)

Extra dry

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Stabilizer (BHT)	**0.0007-0.001%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Water (KF)	**max. 0.01%w/w**
Peroxides (as H_2O_2)	**max. 0.0005%**		

Cat. No. 052853

Diethylether (stab./BHT)

Extra dry / M. sieves

Acidity (as Acetic acid)	**max. 0.001%**	Water (KF)	**max. 0.005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**		
Residue after evaporation	**max. 0.001%w/w**		
Stabilizer (BHT)	**0.0007-0.001%w/w**		

Cat. No. 052833

Diethylether (stab./BHT)

Peptide synthesis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Stabilizer (BHT)	**0.0007-0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.01%w/w**
Subs. darkened by Sulfuric Acid	**Passes test**	Fe (Iron)	**max. 0.1ppm**
Free Amines (Kaiser)	**max. 0.001%**	Mg (Magnesium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99%**	Pb (Lead)	**max. 0.1ppm**
Peroxides (as H_2O_2)	**max. 0.0005%**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 052802

Diethylether (stab./BHT)

CP

Appearance	**Clear colorless liquid**	Stabilizer (BHT)	**0.0007-0.001%w/w**
Assay (GC, on anhydrous basis)	**min. 99%**	Water (KF)	**max. 0.1%w/w**
Peroxides (as H_2O_2)	**max. 0.005%**		

Diethylether (stab./Ethanol)

Synonym: *Ether, Ethyl ether*

CAS [60-29-7]; EC 200-467-2; $C_4H_{10}O$; M 74.12

D 0.714; m.p. -116 °C; b.p. 34.6 °C; UN 1155,3,I,F1

Danger H:224-302-336; EUH:019-066; P:210-241-261-303+361+353

Cat. No. 052960

Diethylether (stab./Ethanol)

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	Stabilizer (EtOH)	**0.5-1.5%w/v**
Assay (Corr. stabilizer/s)	**min. 99.5%**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Peroxides (as H_2O_2)	**max. 0.0005%**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Residue after evaporation	**max. 0.0003%w/w**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Water (KF)	**max. 0.1%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 052926

Diethylether (stab./Ethanol)

Pesti-S

Appearance	**Clear colorless liquid**	Peroxides (as H_2O_2)	**max. 0.0005%**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**	Residue after evaporation	**max. 0.0002%w/w**
		Stabilizer (EtOH)	**0.5-1.5%w/v**
GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**	Water (KF)	**max. 0.2%w/w**
Assay (Corr. stabilizer/s)	**min. 99.5%**		

Filtered through 0.2µm, filled under inert gas.

Diethylether (unstabilized)

Synonym: *Ether, Ethyl ether*

CAS [60-29-7]; EC 200-467-2; $C_4H_{10}O$; M 74.12

D 0.714; m.p. -116 °C; b.p. 34.6 °C; UN 1155,3,I,F1

Danger H:224-302-336; EUH:019-066; P:210-241-261-303+361+353

Cat. No. 053106

Diethylether (unstabilized)

HPLC

Appearance	**Clear colorless liquid**	T220nm	**min. 15%**
Acidity (as Acetic acid)	**max. 0.001%**	T230nm	**min. 60%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T250nm	**min. 85%**
Residue after evaporation	**max. 0.0005%w/w**	T270nm	**min. 95%**
Water (KF)	**max. 0.03%w/w**		

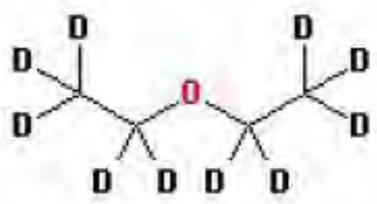
Filtered through 0.2µm, filled under inert gas.

Diethylether-d10, 99atom%D

CAS [2679-89-2]; EC 220-235-4; $D_{10}C_4O$; M 84.18

D 0.714; m.p. -116 °C; b.p. 34.6 °C; UN 1155,3,I,F1

Danger H:224-302-336; P:210-241-261-303+361+353-405-501



Cat. No. 303995

Diethylether-d10, 99atom%D

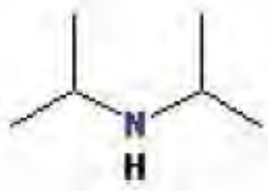
For NMR

Enrichment (NMR)	**min. 99Atom%D**

Diisopropylamine

Synonym: *DIPA*

CAS [108-18-9]; EC 203-558-5; $C_6H_{15}N$; M 101.19



Danger H:225-302-314-332; P:210-303+361+353-305+351+338-310

Cat. No. 044202 ***Diisopropylamine***

CP

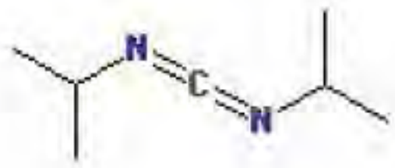
Assay (GC, on anhydrous basis)	**min. 99%**
Residue after evaporation	**max. 0.004%w/w**
Water (KF)	**max. 0.3%w/w**

N,N'-Diisopropylcarbodiimide (DIC)

Synonym: *DIC*

CAS [693-13-0]; EC 211-743-7; $C_7H_{14}N_2$; M 126.2

D 0.81; b.p. 145-148 °C; UN 2929,6.1+3,II,FT1;



Danger H:226-315-317-318-330-334-335; P:303+361+353-305+351+338-310-405-501

Cat. No. 043033 ***N,N'-Diisopropylcarbodiimide (DIC)***

Peptide synthesis

Appearance	**Colorless to light yellow liquid**
Assay (GC, on anhydrous basis)	**min. 99.0%**
Refractive index (20/D)	**1.431-1.435**
Identity (IR)	**Conforms with structure**

Diisopropyl ether (stab./BHT)

Synonym: *Isopropyl ether*

CAS [108-20-3]; EC 203-560-6; $C_6H_{14}O$; M 102.18

D 0.73; m.p. -85.5 °C; b.p. 68 °C; UN 1159,3,II,F1

Danger H:225-336; EUH:019-066; P:210-241-261-303+361+353

Cat. No. 044006 ***Diisopropyl ether (stab./BHT)***

HPLC

Appearance	**Clear colorless liquid**	Stabilizer (BHT)	**0.0004-0.0007%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.01%w/w**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.001%w/w**
Assay (GC, on anhydrous basis)	**min. 99%**	T254nm	**min. 40%**
Peroxides (as H_2O_2)	**max. 0.001%**	T280nm	**min. 80%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 044005 ***Diisopropyl ether (stab./BHT)***

AR

Appearance	**Clear colorless liquid**	Peroxides (as H_2O_2)	**max. 0.001%**
Acidity (as Acetic acid)	**max. 0.002%**	Stabilizer (BHT)	**0.0035-0.0050%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.01%w/w**
Assay (GC, on anhydrous basis)	**min. 99.0%**	Residue after evaporation	**max. 0.005%w/w**

Cat. No. 044051

Diisopropyl ether (stab./BHT)

AR-S glass distilled

Acidity (as Acetic acid)	**max. 0.002%**	Cd (Cadmium)	**max. 0.05ppm**
Color (APHA)	**max. 10**	Co (Cobalt)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Cr (Chromium)	**max. 0.02ppm**
Peroxides (as H_2O_2)	**max. 0.001%**	Cu (Copper)	**max. 0.02ppm**
Stabilizer (BHT)	**0.0035-0.0050%w/w**	Fe (Iron)	**max. 0.1ppm**
Water (KF)	**max. 0.01%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.005%w/w**	Mn (Manganese)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Ni (Nickel)	**max. 0.02ppm**
B (Boron)	**max. 0.02ppm**	Pb (Lead)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 044053

Diisopropyl ether (stab./BHT)

Extra dry / M. sieves

Assay (GC, on anhydrous basis)	**min. 99%**	Stabilizer (BHT)	**0.0035-0.0050%w/w**
Peroxides (as H_2O_2)	**max. 0.005%**	Water (KF)	**max. 0.005%w/w**
		Residue after evaporation	**max. 0.005%w/w**

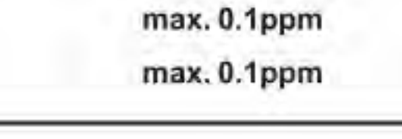
Cat. No. 044002

Diisopropyl ether (stab./BHT)

CP

Appearance	**Clear colorless liquid**	Stabilizer (BHT)	**0.0035-0.0050%w/w**
Assay (GC, on anhydrous basis)	**min. 98%**	Water (KF)	**max. 0.1%w/w**
Peroxides (as H_2O_2)	**max. 0.005%**	Residue after evaporation	**max. 0.005%w/w**

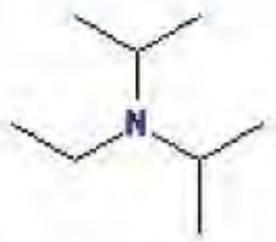
N,N-Diisopropylethylamine



Synonym: Hunig's base, N-Ethyldiisopropylamine, DIPEA, Ethyldiisopropylamine

CAS [7087-68-5]; EC 230-392-0; $C_8H_{19}N$; M 129.24

D 0.742; m.p. -46 °C; b.p. 127 °C; UN 2733,3+8,II,FC



Danger H:225-301-314-412; P:210-280-301+330+331-305+351+338-309+311

Cat. No. 041584

N,N-Diisopropylethylamine

LV-GC for organic trace analysis

Appearance	**Clear liquid**	Assay (GC, on anhydrous basis)	**min. 99.8%**
Color (APHA)	**max. 20**	Residue after evaporation	**max. 0.001%w/w**
F254nm (as Quinine)	**max. 1ppb**	Water (KF)	**max. 0.05%w/w**
F365nm (as Quinine)	**max. 1.5ppb**		

Cat. No. 041505

N,N-Diisopropylethylamine

AR

Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 99%**
Residue after evaporation	**max. 0.002%w/w**
Water (KF)	**max. 0.05%w/w**

Cat. No. 041533

N,N-Diisopropylethylamine

Peptide synthesis

Appearance	**Clear liquid**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 25**	Water (KF)	**max. 0.03%w/w**
Primary/secondary Amines	**max. 0.002%**	Identity (IR)	**Conforms to standard**
Assay (GC, on anhydrous basis)	**min. 99.5%**		

Cat. No. 041502

N,N-Diisopropylethylamine

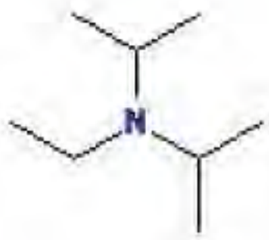
CP

Assay (GC, on anhydrous basis)	**min. 98%**
Residue after evaporation	**max. 0.01%w/w**
Water (KF)	**max. 0.2%w/w**

N,N'-Diisopropylethylamine 2M in NMP

D 0.952; UN 2924,3+8,II;

Danger H:225-302-314-335-336-360-412; P:210-303+361+353-305+351+338-310



Cat. No. 045633

N,N'-Diisopropylethylamine 2M in NMP

Peptide synthesis

Appearance	**Clear solution**
DIEA Assay	**1.8-2.2M**
Purity of NMP	**min. 99.5%**
Purity of DIEA	**min. 99.5%**

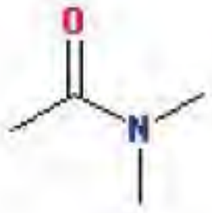
N,N-Dimethylacetamide

Synonym: *DMA*

CAS [127-19-5]; EC 204-826-4; C_4H_9NO; M 87.12

D 0.937; m.p. -20 °C; b.p. 164-166 °C;

Danger H:312-332-360D; P:261-280-281-322



Cat. No. 042006

N,N-Dimethylacetamide

HPLC

Appearance	**Clear colorless liquid**	T270nm	**min. 10%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T300nm	**min. 80%**
Residue after evaporation	**max. 0.002%w/w**	T360nm	**min. 98%**
Water (KF)	**max. 0.03%w/w**	T400nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 042075

N,N-Dimethylacetamide

Headspace

Appearance	**Clear colorless liquid**	T268nm	**min. 10%**
Assay (GC, on anhydrous basis)	**min. 99.99%**	T275nm	**min. 55%**
Refractive index (20/D)	**1.436-1.438**	T300nm	**min. 85%**
Acidity (as Acetic acid)	**max. 0.003%**	T350nm	**min. 98%**
Water (KF)	**max. 0.02%w/w**	T400nm	**min. 99%**
UV cutoff wavelength	**190-268nm**	Headspace test for O.V.I.	**Passes HS test for O.V.I's**

Filled under inert gas.

Cat. No. 042005

N,N-Dimethylacetamide

AR

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.002%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.1%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**		

Cat. No. 042033

N,N-Dimethylacetamide

Peptide synthesis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.03%w/w**
Acidity (as Acetic acid)	**max. 0.02%**	Fe (Iron)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Mg (Magnesium)	**max. 0.1ppm**
Free Amines (Kaiser)	**max. 0.002%**	Pb (Lead)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Zn (Zinc)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**		

Cat. No. 042002

N,N-Dimethylacetamide

CP

Appearance	**Clear colorless liquid**
Assay (GC, on anhydrous basis)	**min. 99%**
Residue after evaporation	**max. 0.005%w/w**
Water (KF)	**max. 0.2%w/w**

N,N-Dimethylacetamide-d9, 99 atom%D

CAS [116057-81-9]; C_4D_9NO; M 96.18; D 1.03

Danger H:312-332-360D; P:261-280-304+340-405-501

Cat. No. 304095

N,N-Dimethylacetamide-d9, 99 atom%D

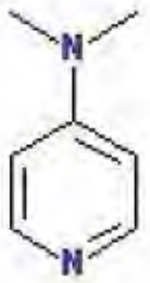
For NMR

Enrichment (NMR)	**min. 99Atom%D**
Water (KF)	**max. 0.1% H_2O+D_2O**

4-(Dimethylamino)pyridine

Synonym: DMAP

CAS [1122-58-3]; EC 214-353-5; $C_7H_{10}N_2$; M 122.17



Danger H:301-310-315-319; P:280-301+310-305+351+338-361

Cat. No. 044633

4-(Dimethylamino)pyridine

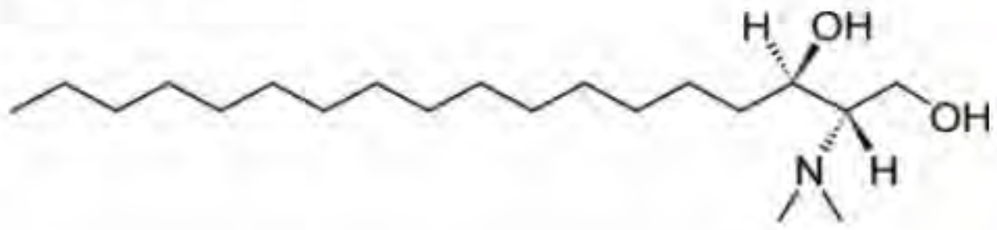
Peptide synthesis

Appearance	**White to off white powder**	Identity (IR)	**Conforms to standard**
Solubility (10% in Methanol)	**Clear colorless solution**	Fe (Iron)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99%**	Mg (Magnesium)	**max. 0.1ppm**
Melting point	**108-112°C**	Pb (Lead)	**max. 0.1ppm**
Water (KF)	**max. 0.1%w/w**	Zn (Zinc)	**max. 0.1ppm**

N,N-Dimethyl-D-erythro-Sphinganine

Synonym: *Dimethyl Sphinganine (d18:0); sphinganine 2S, 3R N,N-dimethylamine*

CAS [17267-46-8]; $C_{20}H_{43}NO_2$; M 329.6;



Cat. No. 310180

N,N-Dimethyl-D-erythro-Sphinganine

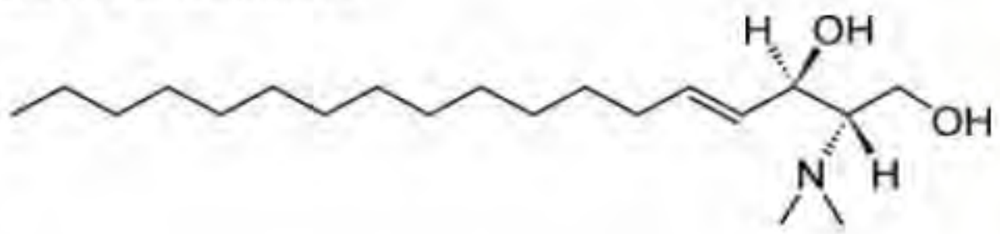
For synthesis

Appearance	**White waxen soild**	NMR H^1 spectrum	**Conforms to structure**
Water (KF)	**max. 2%w/w**	MS Spectra	**Conforms to structure**
Purity (TLC)	**min. 98%**		

N,N-Dimethyl-D-erythro-Sphingosine

Synonym: *N,N-dimethylsphingosine (d18:1); sphingosine 2S, 3R, N,N-dimethylamine.*

CAS [119567-63-4]; $C_{20}H_{41}NO_2$; M 327.55;



Cat. No. 050380

N,N-Dimethyl-D-erythro-Sphingosine

For synthesis

Appearance	**Clear oil**	Purity (HPLC)	**min. 98%**
Water (KF)	**max. 2%w/w**	NMR H^1 spectrum	**Conforms to structure**
Purity (TLC)	**min. 98%**	MS Spectra	**Conforms with structure**

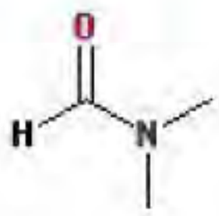
N,N-Dimethylformamide

Synonym: *DMF*

CAS [68-12-2]; EC 200-679-5; C_3H_7NO; M 73.09

D 0.945; m.p. -61 °C; b.p. 153 °C; UN 2265,3,III,F1

Danger H:226-312-319-332-360D; P:210-241-303+361+353-305+351+338-405



Cat. No. 041906

N,N-Dimethylformamide

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.03%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	T270nm	**min. 30%**
Color (APHA)	**max. 15**	T275nm	**min. 60%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T300nm	**min. 90%**
Residue after evaporation	**max. 0.0005%w/w**	T320nm	**min. 97%**

Filtered through 0.4µm, filled under inert gas.

Cat. No. 041975

N,N-Dimethylformamide

Headspace

Appearance	**Clear liquid**	T270nm	**min. 20%**
Assay (GC, on anhydrous basis)	**min. 99.99%**	T275nm	**min. 55%**
Refractive index (20/D)	**1.429-1.431**	T300nm	**min. 85%**
Water (KF)	**max. 0.03%w/w**	T320nm	**min. 95%**
UV cutoff wavelength	**190-269nm**	Headspace test for O.V.I.	**Passes HS test for O.V.I's**

Filled under inert gas.

Cat. No. 041905

N.N-Dimethylformamide

AR

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.8%**
Acidity (as Acetic acid)	**max. 0.001%**	Iron (Fe)	**max. 0.00001%**
Alkalinity (as Ammonia)	**max. 0.005%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.02%w/w**

Cat. No. 041951

N.N-Dimethylformamide

AR-S glass distilled

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.001%**	Co (Cobalt)	**max. 0.02ppm**
Alkalinity (as Ammonia)	**max. 0.005%**	Cr (Chromium)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cu (Copper)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0005%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Water (KF)	**max. 0.02%w/w**	Mn (Manganese)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Ni (Nickel)	**max. 0.02ppm**
B (Boron)	**max. 0.02ppm**	Pb (Lead)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 041959

N.N-Dimethylformamide

Supra dry

Appearance	**Clear liquid**	Water (KF)	**max. 0.0045%w/w**
Color (APHA)	**max. 20**	Residue after evaporation	**max. 0.001%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**		
Acidity (as Acetic acid)	**max. 0.002%**		

Cat. No. 041947

N.N-Dimethylformamide

Extra dry

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.8%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 15**	Water (KF)	**max. 0.01%w/w**
Free Amines (Kaiser)	**max. 0.001%**		

Cat. No. 041953

N.N-Dimethylformamide

Extra dry / M. sieves

Appearance	**Clear liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**		

Cat. No. 041933

N.N-Dimethylformamide

Peptide synthesis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Fe (Iron)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Mg (Magnesium)	**max. 0.1ppm**
Formaldehyde	**max. 0.002%**	Pb (Lead)	**max. 0.1ppm**
Free Amines (Kaiser)	**max. 0.001%**	Zn (Zinc)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**		
Residue after evaporation	**max. 0.001%w/w**		

Cat. No. 041932

N,N-Dimethylformamide

Peptide-S

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Fe (Iron)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Mg (Magnesium)	**max. 0.1ppm**
Formaldehyde	**max. 0.002%**	Pb (Lead)	**max. 0.1ppm**
Free Amines (Kaiser)	**max. 0.0003%**	Zn (Zinc)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**		
Residue after evaporation	**max. 0.001%w/w**		

Cat. No. 041997

N,N-Dimethylformamide

Peptide supra

Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Mg (Magnesium)	**max. 0.1ppm**
Primary amines	**Not detected**	Pb (Lead)	**max. 0.1ppm**
Other amines	**Not detected**	Zn (Zinc)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**		
Residue after evaporation	**max. 0.001%w/w**		
Water (KF)	**max. 0.01%w/w**		

Cat. No. 041923

N,N-Dimethylformamide

Molecular biology

Appearance	**Clear colorless liquid**	Heavy metals (as Pb)	**max. 0.00001%**
Acidity (as Acetic acid)	**max. 0.001%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.05%w/w**
Free Amines (Kaiser)	**max. 0.001%**	Zinc (Zn)	**max. 0.00001%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	A270nm	**max. 1AU**
Iron (Fe)	**max. 0.00001%**	A295nm	**max. 0.1AU**

Cat. No. 041902

N,N-Dimethylformamide

CP

Appearance	**Clear liquid**	Residue after evaporation	**max. 0.002%w/w**
Color (APHA)	**max. 20**	Water (KF)	**max. 0.1%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**		

N,N-Dimethylformamide-d1, 99 atom%D

CAS [2914-27-4]; C_3H_6DNO; M 74.10; D 0.96

Danger H:226-312-319-332-360D; P:210-241-303+361+353-305+351+338-405-501

Cat. No. 304195

N,N-Dimethylformamide-d1, 99 atom%D

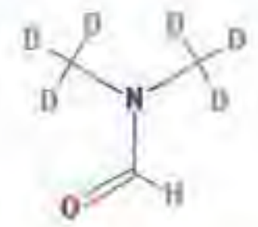
For NMR

Enrichment (NMR)	**min. 99Atom%D**
Water (KF)	**max. 0.1% H_2O+D_2O**

N,N-Dimethyl-d6 formamide, 99 atom%D

CAS [4148-1-800]; C_3HD_6NO; M 79.14; D 1.03

Danger H:226-312-319-332-360D; P:210-241-303+361+353-305+351+338-405-501



Specification continues on the next page

Cat. No. 304295

N,N-Dimethyl-d6 formamide, 99 atom%D

For NMR

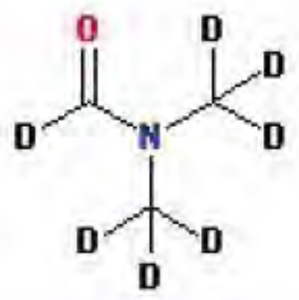
Enrichment (NMR)	**min. 99Atom%D**
Water (KF)	**max. 0.1% H_2O+D_2O**

N,N-Dimethylformamide-d7, 99.8 atom%D

CAS [4472-41-7]; EC 224-745-8; C_3D_7NO; M 80.15

D 1.03; m.p. 155° C; UN 2265,3,III,F1;

Danger H:226-312-319-332-360D; P:210-241-303+361+353-305+351+338-405-501



Cat. No. 304395

N,N-Dimethylformamide-d7, 99.8 atom%D

For NMR

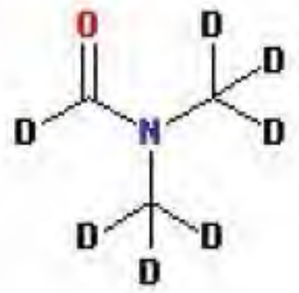
Enrichment (NMR)	**min. 99.8Atom%D**
Water (KF)	**max. 0.03% H_2O+D_2O**

N,N-Dimethylformamide-d7, 99.5 atom%D

CAS [4472-41-7]; EC 224-745-8; C_3D_7NO; M 80.15

D 1.05; b.p. 155° C; UN 2265,3,III,F1;

Danger H:226-312-319-332-360D; P:210-241-303+361+353-305+351+338-405-501



Cat. No. 305695

N,N-Dimethylformamide-d7, 99.5 atom%D

For NMR

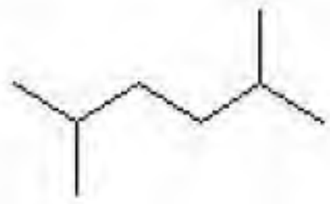
Appearance	**Clear colorless liquid**
Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.05% H_2O+D_2O**

2,5-Dimethylhexane

Synonym: Diisobutyl

CAS [592-13-2]; EC 209-745-8; C_8H_{18}; M 114.23

Danger H:225-304-315-336-410;



Cat. No. 046280

2,5-Dimethylhexane

For synthesis

Appearance	**Clear colorless liquid**
Assay (GC, on anhydrous basis)	**min. 98.5%**
Refractive index (20/D)	**1.3915-1.3935**
Identity (IR)	**Conforms to standard**

1,3-Dimethyl-2-Imidazolidinone

Synonym: *N,N'-Dimethylethyleneurea, DMEU, DMI*

CAS [80-73-9]; EC 201-304-8; $C_5H_{10}N_2O$; M 114.15

D 1.056; m.p. 8.2 °C; b.p. 225.5 °C; UN 2810,6.1,III,T1

Danger H:302-318-361-373; P:260-280-305+351+338-310-405

Cat. No. 090775 ***1,3-Dimethyl-2-Imidazolidinone***

Headspace

Appearance	**Clear liqiud**	T275nm	**min. 40%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	T300nm	**min. 65%**
Refractive index (20/D)	**1.470-1.473**	T325nm	**min. 80%**
Water (KF)	**max. 0.03%w/w**	T>350nm	**min. 90%**
UV cutoff wavelength	**190-270nm**	Headspace test for O.V.I's	**Passes HS test for O.V.I's**

Filled under inert gas.

Cat. No. 090705 ***1,3-Dimethyl-2-Imidazolidinone***

AR

Appearance	**Clear colorless liquid**
Assay (GC, on anhydrous basis)	**min. 99.5%**
Water (KF)	**max. 0.1%w/w**

Dimethyl sulfate

CAS [77-78-1]; EC 201-058-1; $C_2H_6O_4S$; M 126.13

D 1.330; m.p. -32 °C; b.p. 188 °C; UN 1595,6.1(8),I,TC1

Danger H:301-314-317-330-341;

Cat. No. 043902 ***Dimethyl sulfate***

CP

Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 99%**
Acidity (as H_2SO_4)	**max. 0.5%v/v**

Dimethylsulfoxide

Synonym: *DMSO, Methyl sulfoxide*

CAS [67-68-5]; EC 200-664-3; C_2H_6OS; M 78.13

D 1.1; m.p. 18.4 °C; b.p. 189 °C;

Warning; H:319; P:305+351+338-501

Cat. No. 044706 ***Dimethylsulfoxide***

HPLC

Appearance	**Clear colorless liquid**	T263nm	**min. 10%**
Color (APHA)	**max. 10**	T270nm	**min. 40%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T290nm	**min. 70%**
Acidity	**max. 0.0006meq/gr**	T310nm	**min. 90%**
Water (KF)	**max. 0.05%w/w**	T330nm	**min. 95%**
Residue after evaporation	**max. 0.001%w/w**	T350-400nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Cat. No. 044738

Dimethylsulfoxide

Spectrofluopure

Acidity (as Acetic acid)	**max. 0.003%**	T265nm	**min. 10%**
Color (APHA)	**max. 10**	T275nm	**min. 50%**
F365nm (as Quinine)	**max. 7ppb**	T295nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T340nm	**min. 98%**
Water (KF)	**max. 0.1%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 044708

Dimethylsulfoxide

Spectropure

Appearance	**Clear colorless liquid**	T280nm	**min. 65%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T290nm	**min. 75%**
Water (KF)	**max. 0.2%w/w**	T300nm	**min. 85%**
Residue after evaporation	**max. 0.001%w/w**	T320nm	**min. 90%**
T265nm	**min. 20%**	T350-400nm	**min. 98%**
T270nm	**min. 75%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 044775

Dimethylsulfoxide

Headspace

Appearance	**Clear colorless liquid**	T275nm	**min. 60%**
Assay (GC, on anhydrous basis)	**min. 99.99%**	T300nm	**min. 85%**
Refractive index (20/D)	**1.477-1.480**	T350nm	**min. 95%**
Water (KF)	**max. 0.03%w/w**	T400nm	**min. 98%**
UV cutoff wavelength	**190-265nm**	Headspace test for O.V.I.	**Passes HS test for O.V.I's**
T268nm	**min. 30%**		

Cat. No. 044710

Dimethylsulfoxide

MOS

Color (APHA)	**max. 15**	Cr (Chromium)	**max. 100ppb**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Cu (Copper)	**max. 100ppb**
Residue after evaporation	**max. 0.001%w/w**	Fe (Iron)	**max. 100ppb**
Water (KF)	**max. 0.05%w/w**	K (Potassium)	**max. 100ppb**
Acidity (as Acetic acid)	**max. 0.002%**	Li (Lithium)	**max. 100ppb**
Alkalinity (as CH_3NH_2)	**max. 0.001%**	Mg (Magnesium)	**max. 100ppb**
Chloride (Cl)	**max. 1ppm**	Mn (Manganese)	**max. 100ppb**
Phosphate (PO_4)	**max. 1ppm**	Na (Sodium)	**max. 100ppb**
Dilution test	**Passes test**	Ni (Nickel)	**max. 100ppb**
Ag (Silver)	**max. 100ppb**	Pb (lead)	**max. 100ppb**
Al (Aluminum)	**max. 100ppb**	Sn (Tin)	**max. 100ppb**
As & Sb (as As)	**max. 100ppb**	Sr (Strontium)	**max. 300ppb**
Au (Gold)	**max. 100ppb**	Ti (Titanium)	**max. 100ppb**
B (Boron)	**max. 100ppb**	V (Vanadium)	**max. 100ppb**
Ba (Barium)	**max. 100ppb**	Zn (Zinc)	**max. 100ppb**
Ca (Calcium)	**max. 300ppb**	Particle count > 0.5µm	**max. 100P/ml**
Cd (Cadmium)	**max. 100ppb**	Particle count > 1µm	**max. 10P/ml**
Co (Cobalt)	**max. 100ppb**		

Filtered through 0.4um.

Cat. No. 044705

Dimethylsulfoxide

AR

Appearance	**Clear colorless liquid**	Iron (Fe)	**max. 0.0001%**
Acidity (as Acetic acid)	**max. 0.003%**	Heavy metals (as Pb)	**max. 0.0001%**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.001%w/w**
Substances darkened by KOH	**Passes test**	Water (KF)	**max. 0.1%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**		

Cat. No. 044764

Dimethylsulfoxide

Meets ACS/EP/BP/USP spec.

Identification A	**Passes EP/BP/USP tests**	Any impurity	**max. 0.03%**
Identification B	**Passes EP/BP/USP tests**	Total of other impurities	**max. 0.1%w/w**
Identification C	**Passes EP/BP tests**	Assay (GC, on anhydrous basis)	**min. 99.9%**
Identification D	**Passes EP/BP tests**	Residual solvents	**Meets the requirements**
Identity (IR)	**Meets the requirements**	Residue after evaporation	**max. 0.001%w/w**
Appearance	**Colorless liquid or crystals**	Substances darkened by KOH	**max. 0.023AU**
Relative density (20°C)	**1.100-1.104**	Cr (Chromium)	**max. 0.1ppm**
Specific gravity	**1.095-1.101**	Cu (Copper)	**max. 0.1ppm**
Refractive index (20/D)	**1.478-1.479**	Fe (Iron)	**max. 0.1ppm**
Refractive index (25/D)	**1.4755-1.4775**	Ir (Iridium)	**max. 0.1ppm**
Freezing point	**18.3-19.0°C**	Mn (Manganese)	**max. 0.1ppm**
Acidity	**max. 0.05meq/gr**	Mo (Molybdenum)	**max. 0.1ppm**
Solubility	**Miscible with Water & Ethanol 96%**	Ni (Nickel)	**max. 0.1ppm**
		Os (Osmium)	**max. 0.1ppm**
Water (KF)	**max. 0.1%w/w**	Pd (Palladium)	**max. 0.1ppm**
A275nm	**max. 0.20AU**	Pt (Platinum)	**max. 0.1ppm**
A285nm	**max. 0.20AU**	Rh (Rhodium)	**max. 0.1ppm**
A295nm	**max. 0.20AU**	Ru (Ruthenium)	**max. 0.1ppm**
A285/A275nm	**max. 0.65AU**	V (Vanadium)	**max. 0.1ppm**
A295/A275nm	**max. 0.45AU**	Zn (Zinc)	**max. 0.1ppm**
A270-350nm	**No absorption maximum**		
Related substances	**Meets the requirements**		

Cat. No. 044703

Dimethylsulfoxide

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Freezing point	**18.3-19.0°C**
Identification B	**Passes EP/BP test**	Cr (Chromium)	**max. 0.1ppm**
Identification C	**Passes EP/BP test**	Cu (Copper)	**max. 0.1ppm**
Appearance	**Colorless liquid or crystals**	Fe (Iron)	**max. 0.1ppm**
Relative density (20°C)	**1.100-1.104**	Ir (Iridium)	**max. 0.1ppm**
Refractive index (20/D)	**1.478-1.479**	Mn (Manganese)	**max. 0.1ppm**
Acidity	**max. 0.05meq/gr**	Mo (Molybdenum)	**max. 0.1ppm**
Water (KF)	**max. 0.2%w/w**	Ni (Nickel)	**max. 0.1ppm**
Related substances	**Passes EP/BP test**	Os (Osmium)	**max. 0.1ppm**
Total of other impurities	**max. 0.1%w/w**	Pd (Palladium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Pt (Platinum)	**max. 0.1ppm**
A275nm	**max. 0.30AU**	Rh (Rhodium)	**max. 0.1ppm**
A285nm	**max. 0.20AU**	Ru (Ruthenium)	**max. 0.1ppm**
A295nm	**max. 0.20AU**	V (Vanadium)	**max. 0.1ppm**
A270-350nm	**No absorption maximum**	Zn (Zinc)	**max. 0.1ppm**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 044759

Dimethylsulfoxide

Supra dry

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	Water (KF)	**max. 0.005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**		

Cat. No. 044747

Dimethylsulfoxide

Extra dry

Appearance	**Clear colorless liquid**	Iron (Fe)	**max. 0.00001%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.01%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**		

Cat. No. 044733

Dimethylsulfoxide

Peptide synthesis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.005%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	Fe (Iron)	**max. 0.1ppm**
Free Amines (Kaiser)	**max. 0.0002%**	Mg (Magnesium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Pb (Lead)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 044723

Dimethylsulfoxide

Molecular biology

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	Water (KF)	**max. 0.1%w/w**
Color (APHA)	**max. 10**	A280nm	**max. 0.22AU**
Substances darkened by KOH	**Passes test**	DNase activity	**Not detected**
Assay (GC, on anhydrous basis)	**min. 99.7%**	RNase activity	**Not detected**
Iron (Fe)	**max. 0.0001%**	Protease activity	**Not detected**

Cat. No. 044702

Dimethylsulfoxide

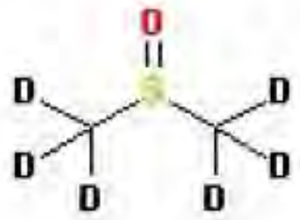
CP

Appearance	**Clear colorless liquid**
Assay (GC, on anhydrous basis)	**min. 99%**
Water (KF)	**max. 0.1%w/w**
Residue after evaporation	**max. 0.002%w/w**

■ Dimethyl-d6 sulfoxide, 100 atom%D

CAS [2206-27-1]; EC 218-617-0; C_2D_6OS; M 84.16

Warning; H:319; P:305+351+338



Cat. No. 304595

Dimethyl-d6 sulfoxide, 100 atom%D

For NMR

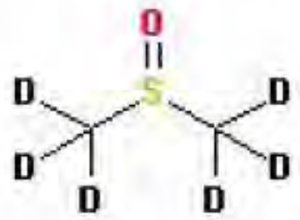
Enrichment (NMR)	**min. 99.95Atom%D**
Water (KF)	**max. 0.02% H_2O+D_2O**

■ Dimethyl-d6 sulfoxide, 99.9 atom%D

CAS [2206-27-1]; EC 218-617-0; C_2D_6OS; M 84.16

D 1.19; m.p. 20.2 °C; b.p. 190 °C;

Warning; H:319; P:305+351+338



Cat. No. 306495

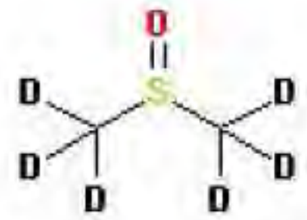
Dimethyl-d6 sulfoxide, 99.9 atom%D

For NMR

Appearance	**Clear colorless liquid**
Enrichment (NMR)	**min. 99.9Atom%D**
Water (KF)	**max. 0.025% H_2O+D_2O**

Dimethyl-d6 sulfoxide, 99.8 atom%D

CAS [2206-27-1]; EC 218-617-0; C_2D_6OS; M 84.16



Warning; H:319; P:305+351+338

Cat. No. 304495

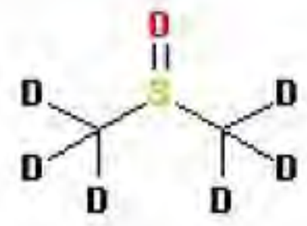
Dimethyl-d6 sulfoxide, 99.8 atom%D

For NMR

Appearance	**Clear colorless liquid**
Enrichment (NMR)	**min. 99.8Atom%D**
Water (KF)	**max. 0.03% H_2O+D_2O**

Dimethyl-d6 sulfoxide with 0.03%TMS, 99.8atom%D

CAS [2206-27-1]; EC 218-617-0; C_2D_6OS; M 84.16



Warning; H:319; P:305+351+338

Cat. No. 304695

Dimethyl-d6 sulfoxide w/ 0.03%TMS, 99.8atom%D

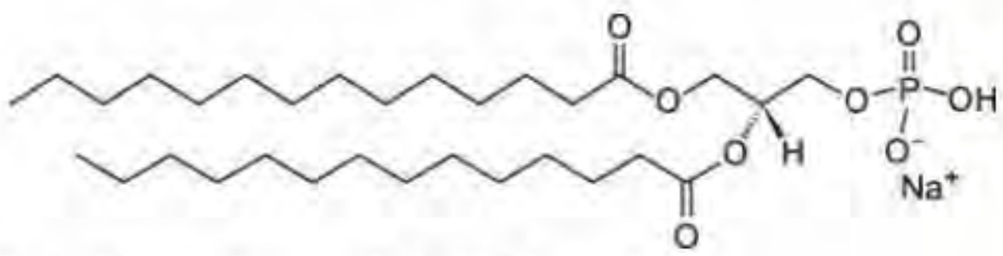
For NMR

Enrichment (NMR)	**min. 99.8Atom%D**
Water (KF)	**max. 0.03%H_2O+D_2O**

1,2-Dimyristoyl-sn-glycero-3-phosphatidic acid, sodium salt (DMPA, Na)

Synonym: DMPA, Na1,2-dimyristoyl-sn-glycero-3-phosphate.

CAS [80724-31-8]; $C_{31}H_{59}O_8PNa$; M 614.767;



Cat. No. 320380

1,2-Dimyristoyl-sn-glycero-3-phosphatidic acid, sodium salt (DMPA, Na)

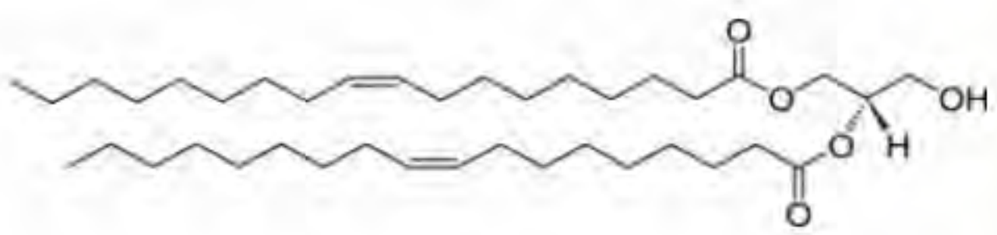
For synthesis

Appearance	**White to off white powder**
Identity (IR)	**Comparable to reference standard**
Fatty Acid (GC, Myristic acid)	**min. 98%**
Water (KF)	**max. 5%w/w**

1,2-Dioleoyl-sn-glycerol

Synonym: 1-2-di-(9Z-octadecenoyl)-sn-glycerol.

CAS [24529-88-2]; $C_{39}H_{72}O_5$; M 620.986;



Cat. No. 314680

1,2-Dioleoyl-sn-glycerol

For synthesis

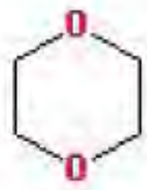
Appearance	**White to off-white powder**	Fatty Acid (GC, Oleic acid)	**min. 98.5%**
Purity (TLC)	**min. 98%**	Identity (IR)	**Complies with ref. standard**
Water (KF)	**max. 0.5%w/w**		

1,4-Dioxane (stab./BHT)

Synonym: *Diethylene oxide, Dioxane*

CAS [123-91-1]; EC 204-661-8; $C_4H_8O_2$; M 88.11

D 1.03; m.p. 12 °C; b.p. 101 °C; UN 1165,3,II,F1



Danger H:225-319-335-351; EUH:019-066; P:210-241-303+361+353-305+351+338

Cat. No. 042405 ***1,4-Dioxane (stab./BHT)***

AR

Appearance	**Clear colorless liquid**	Peroxides (as H_2O_2)	**max. 0.005%**
Acidity (as Acetic acid)	**max. 0.003%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Stabilizer (BHT)	**0.0015-0.003%w/w**
Carbonyl compounds (as HCHO)	**max. 0.01%w/w**	Water (KF)	**max. 0.05%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**		

Cat. No. 042414 ***1,4-Dioxane (stab./BHT)***

AR Extra dry

Appearance	**Clear liquid**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 20**	Water (KF)	**max. 0.10%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Stabilizer (BHT)	**0.0015-0.0030%w/w**
Peroxides (as H_2O_2)	**max. 0.005%**	Acetaldehyde	**max. 0.001%**

Cat. No. 042447 ***1,4-Dioxane (stab./BHT)***

Extra dry

Appearance	**Clear colorless liquid**	Peroxides (as H_2O_2)	**max. 0.005%**
Acidity (as Acetic acid)	**max. 0.002%**	Stabilizer (BHT)	**0.0015-0.003%w/w**
Color (APHA)	**max. 20**	Water (KF)	**max. 0.005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**		

Cat. No. 042453 ***1,4-Dioxane (stab./BHT)***

Extra dry / M. sieves

Acidity (as Acetic acid)	**max. 0.002%**
Assay (GC, on anhydrous basis)	**min. 99.8%**
Stabilizer (BHT)	**0.0015-0.003%w/w**
Water (KF)	**max. 0.005%w/w**

Cat. No. 042402 ***1,4-Dioxane (stab./BHT)***

CP

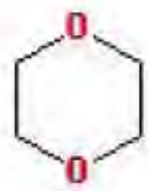
Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99%**
Acidity (as Acetic acid)	**max. 0.005%**	Stabilizer (BHT)	**0.0015-0.003%w/w**
Color (APHA)	**max. 20**	Water (KF)	**max. 0.05%w/w**

1,4-Dioxane (stab./Ethanol)

Synonym: *Diethylene oxide, Dioxane*

CAS [123-91-1]; EC 204-661-8; $C_4H_8O_2$; M 88.11

D 1.03; m.p. 12 °C; b.p. 101 °C; UN 1165,3,II,F1



Danger H:225-319-335-351; EUH:019; P:210-241-303+361+353-305+351+338

Specification continues on the next page

Cat. No. 300405

1,4-Dioxane (stab./Ethanol)

AR

Appearance	**Clear liquid**	Stabilizer (EtOH)	**0.5-1.5%w/v**
Color (APHA)	**max. 15**	Water (KF)	**max. 0.1%w/w**
Assay (Corr. stabilizer/s)	**min. 99%**		
Peroxides (as H_2O_2)	**max. 0.005%**		

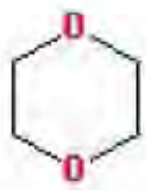
1,4-Dioxane (unstabilized)

Synonym: *Diethylene oxide, Dioxane*

CAS [123-91-1]; EC 204-661-8; $C_4H_8O_2$; M 88.11

D 1.03; m.p. 12 °C; b.p. 101 °C; UN 1165,3,II,F1

Danger H:225-319-335-351; EUH:019-066; P:210-241-303+361+353-305+351+338



Cat. No. 048406

1,4-Dioxane (unstabilized)

HPLC

Appearance	**Clear liquid**	T220nm	**min. 20%**
Acidity (as Acetic acid)	**max. 0.002%**	T240nm	**min. 40%**
Color (APHA)	**max. 20**	T280nm	**min. 90%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T300nm	**min. 98%**
Residue after evaporation	**max. 0.0005%w/w**	Peroxides (as H_2O_2)	**max. 0.01%**
Water (KF)	**max. 0.02%w/w**		

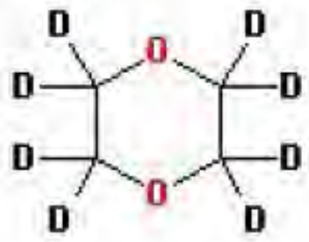
Filtered through 0.2µm, filled under inert gas.

1,4-Dioxane-d8, 99 atom%D

CAS [17647-74-4]; EC 241-628-7; $C_4D_8O_2$; M 96.15

D 1.13; b.p. 99 °C; UN 1165,3,II,F1;

Danger H:225-332; P:210-241-261-280-303+361+353-501



Cat. No. 304795

1,4-Dioxane-d8, 99 atom%D

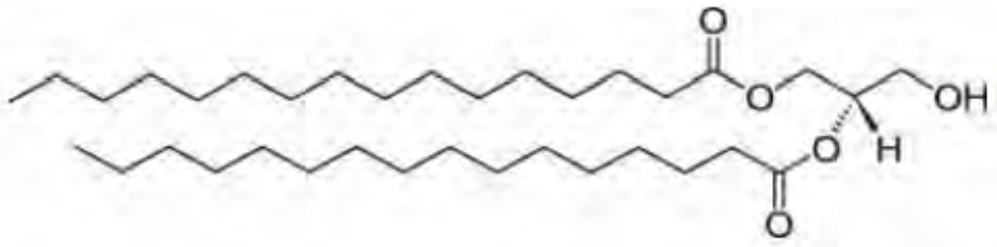
For NMR

Enrichment (NMR)	**min. 99Atom%D**
Water (KF)	**max. 0.1% H_2O+D_2O**

1,2-Dipalmitoyl-sn-glycerol (DPG)

Synonym: *1,2-dihexadecanoyl-sn-glycerol.*

CAS [30334-71-5]; $C_{35}H_{68}O_5$; M 568.93;



Cat. No. 314580

1,2-Dipalmitoyl-sn-glycerol (DPG)

For synthesis

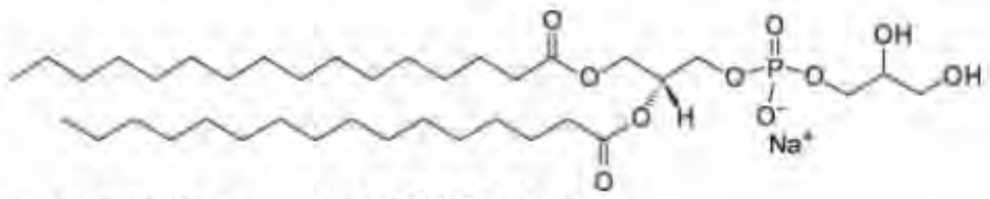
Appearance	**White to off-white powder**	Fatty Acid (GC, Plamitic acid)	**min. 98.5%**
Purity (TLC)	**min. 98%**	Identity (IR)	**Comply with ref. standard**
Water (KF)	**max. 0.5%w/w**		

See also Sphingolipids & Phospholipids section, p. 459-474

1,2-Dipalmitoyl-sn-glycero-3-phosphoglycerol sodium salt (DPPG, Na)

Synonym: *1,2-Dipalmitoyl-sn-glycero-3-[Phospho-rac-(1-glycerol)] Sodium Salt*

CAS [200880-41-7]; $C_{38}H_{74}O_{10}PNa$; M 744.97;



Cat. No. 315580

1,2-Dipalmitoyl-sn-glycero-3-phosphoglycerol sodium salt (DPPG, Na)

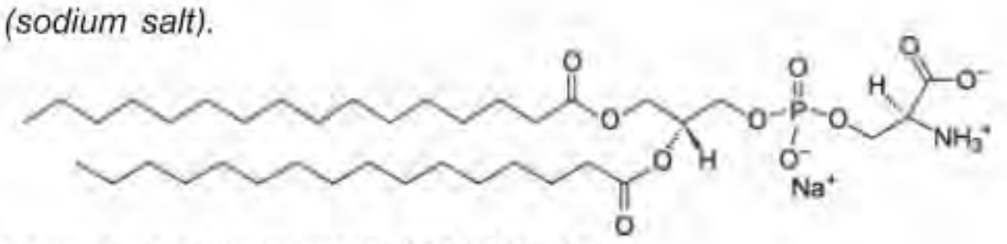
For synthesis

Appearance	**White to off-white solid**	Fatty Acid (GC, Plamitic acid)	**min. 98.5%**
Purity (TLC)	**min. 98%**	Identity (IR)	**Complies with ref. standard**
Water (KF)	**max. 0.5%w/w**		

1,2-Dipalmitoyl-sn-glycero-3-phospho-L-serine, sodium salt (DPPS, Na)

Synonym: *1,2-dihexadecanoyl-sn-glycero-3-phospho-L-serine (sodium salt).*

CAS [145849-32-7]; $C_{38}H_{73}NO_{10}PNa$; M 757.950;



Cat. No. 320480

1,2-Dipalmitoyl-sn-glycero-3-phospho-L-serine, sodium salt (DPPS, Na)

For synthesis

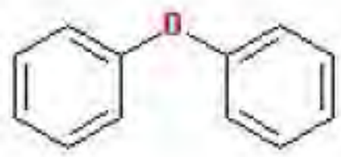
Appearance	**Conforms**	Fatty Acid (GC, Plamitic acid)	**min. 98%**
Identity (IR)	**Comparable to reference standard**	Water (KF)	**max. 2%w/w**
Purity (TLC)	**min. 95%**		

Diphenyl ether

CAS [101-84-8]; EC 202-981-2; $C_{12}H_{10}O$; M 170.21

D 1.0706; m.p. 24-27 °C; b.p. 259 °C; UN 3077,9,III,M7

H:411; P:273-391



Cat. No. 275299

Diphenyl ether

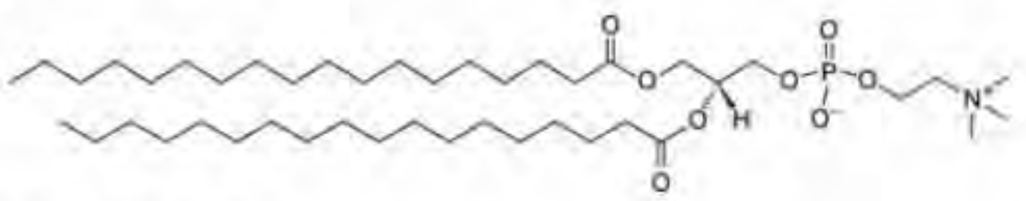
General reagent

Appearance	**White soild to colorless liquid**
Color (APHA)	**max. 10**
Purity (HPLC)	**min. 98.5%**
Water (KF)	**max. 0.0075%w/w**

1,2-Distearoyl-sn-glycero-3-phosphocholine (DSPC)

Synonym: *1,2-dioctadecanoyl-sn-glycero-3-phosphocholine.*

CAS [816-94-4]; $C_{44}H_{88}NO_8P$; M 790.17;



Cat. No. 314080

1,2-Distearoyl-sn-glycero-3-phosphocholine (DSPC)

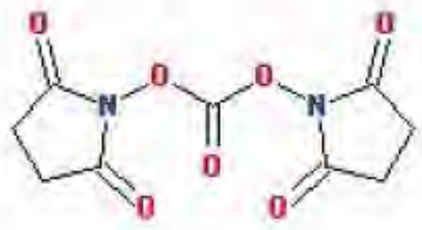
For synthesis

Appearance	**White to off-white powder**	Purity (TLC)	**min. 98%**
Identity (IR)	**Conforms to standard**	Water (KF)	**max. 2%w/w**
Assay (HPLC)	**98-101%**		

N,N'-Disuccinimidyl carbonate

Synonym: *N-Succinimidyl carbonate, DSC, Di(N-succinimidyl) carbonate*

CAS [74124-79-1]; EC 277-730-3; $C_9H_8N_2O_7$; M 256.16



Warning; H:315-319-335; P:261-280-305+351+338-321

Cat. No. 049033

N,N'-Disuccinimidyl carbonate

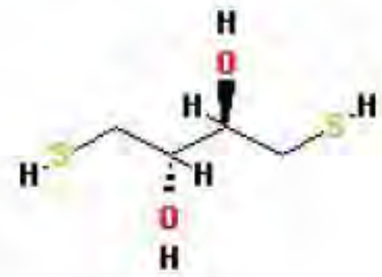
Peptide synthesis

Appearance	**White powder**
Identity (H^1NMR)	**H1 NMR Corresponds**
Purity (HPLC)	**min. 95%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**

1,4-Dithioerythritol

Synonym: *erythro-1,4-Dimercapto-2,3-butanediol, erythro-2,3-Dihydroxy-1,4-butanedithiol,Cleland's reagent, DTE.*

CAS [6892-68-8]; $C_4H_{10}O_2S_2$; M 154.3; m.p. 82-85 °C



Warning; H:315-319-335; P:261-280-305+351+338-321-405

Cat. No. 044523

1,4-Dithioerythritol

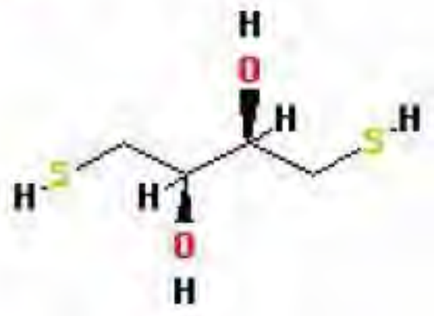
Molecular biology

Appearance	**White to off-white solid**	A280nm (0.1M)	**max. 0.1AU**
Assay	**99-101%w/w**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
A260nm (0.1M)	**max. 0.5AU**	Protease activity	**Not detected**

D,L-Dithiothreitol

Synonym: *threo-1,4-Dimercapto-2,3-butanediol, Cleland's reagent, DTT*

CAS [3483-12-3]; EC 222-468-7; $C_4H_{10}O_2S_2$; M 154.24



Warning; H:302-315-319; P:280-301+312-305+351+338-321-362

Cat. No. 044823

D,L-Dithiothreitol

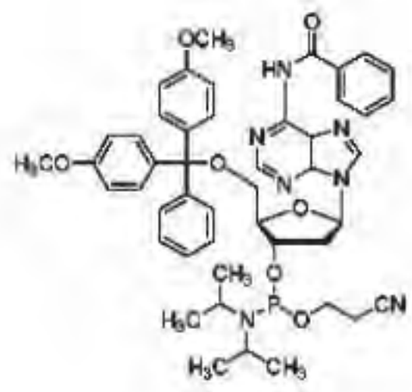
Molecular biology

Application: Antioxidant, used in low concentrations to stabilise enzymes during protein purification and enzymatic reactions. At high concentration, it reduces disulphide bridges present in polypeptides and facilitate protein denaturation by detergentor chaotropic agents.

Appearance	**White powder**	Melting point	**39-44°C**
Assay	**99-101%w/w**	Solubility (5% in Water)	**Clear colorless**
Heavy metals (as Pb)	**max. 0.0005%**	DNase activity	**Not detected**
Oxidized DTT	**max. 0.5%**	RNase activity	**Not detected**
A260nm (1%)	**max. 0.5AU**	Protease activity	**Not detected**
A280nm (1%)	**max. 0.1AU**		

5'-O-DMT-2'-dA(Bz)-CE Phosphoramidite

CAS [98796-53-3]; $C_{47}H_{52}N_7O_7P$; M 857.95



Cat. No. 161024

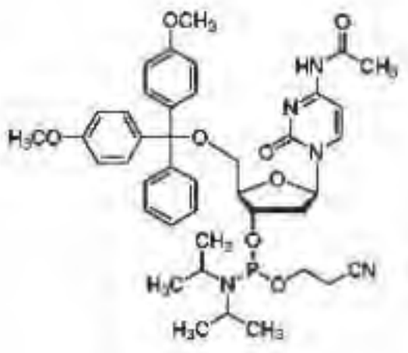
5'-O-DMT-2'-dA(Bz)-CE Phosphoramidite

DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

5'-O-DMT-2'-dC(Ac)-CE Phosphoramidite

CAS [154110-40-4]; $C_{41}H_{50}N_5O_9P$; M 771.85;



Cat. No. 153024

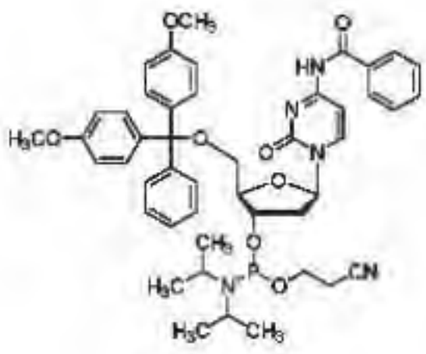
5'-O-DMT-2'-dC(Ac)-CE Phosphoramidite

DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

5'-O-DMT-2'-dC(Bz)-CE Phosphoramidite

CAS [102212-98-6]; $C_{46}H_{52}N_5O_8P$; M 833.93



Cat. No. 161124

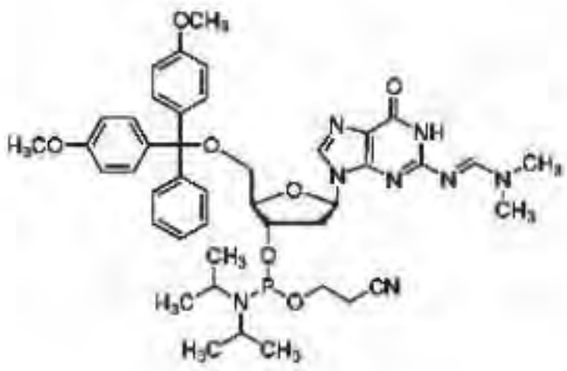
5'-O-DMT-2'-dC(Bz)-CE Phosphoramidite

DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

5'-O-DMT-2'-dG(Dmf)-CE Phosphoramidite

CAS [330628-04-1]; $C_{43}H_{53}N_8O_7P$; M 824.9;



Cat. No. 152924

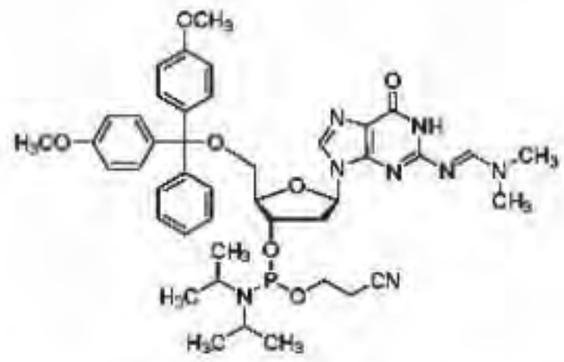
5'-O-DMT-2'-dG(Dmf)-CE Phosphoramidite

DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

5'-O-DMT-2'-dG(iBu)-CE Phosphoramidite

CAS [93183-15-4]; $C_{44}H_{54}N_7O_8P$; M 839.94;



Cat. No. 161224

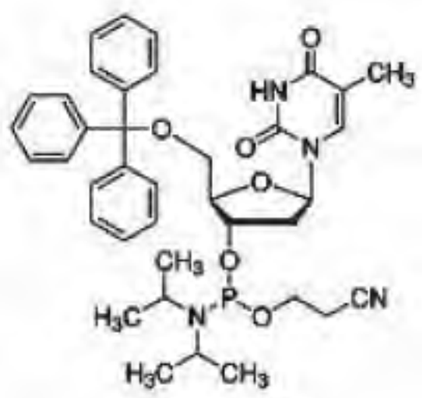
5'-O-DMT-2'-dG(iBu)-CE Phosphoramidite

DNA synthesis

Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

5'-O-DMT-2'-dT-CE Phosphoramidite

CAS [98796-51-1]; $C_{40}H_{49}N_4O_8P$; M 744.83;



Cat. No. 161324

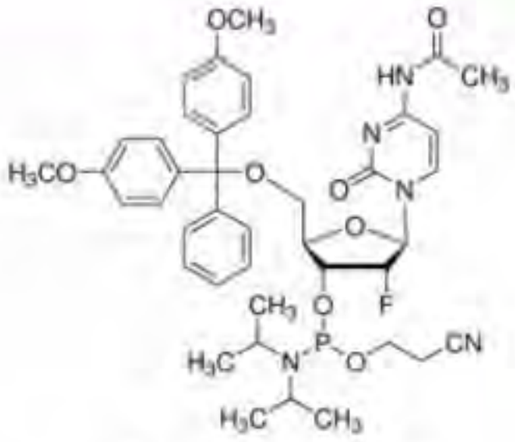
5'-O-DMT-2'-dT-CE Phosphoramidite

DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

DMT-2'Fluoro-dC(Ac) Phosphoramidite

CAS [159414-99-0]; $C_{41}H_{49}FN_5O_8P$; M 789.83;



Cat. No. 180424

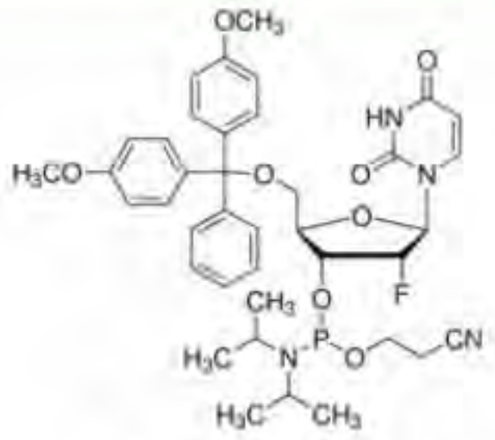
DMT-2'Fluoro-dC(Ac) Phosphoramidite

DNA synthesis

Appearance	**White to off-white solid**	MS Spectra	**Conforms with formula weight**
Assay (HPLC)	**min. 97%**		
NMR P^{31} spectrum	**Conforms with structure**	Water (KF)	**max. 0.4%w/w**
		Solubility (0.1M in ACN)	**Complete, clear**

DMT-2'Fluoro-dU Phosphoramidite

CAS [146954-75-8]; $C_{39}H_{46}FN_4O_8P$; M 748.78;



Cat. No. 180324

DMT-2'Fluoro-dU Phosphoramidite

DNA synthesis

Appearance	**White to off-white solid**	MS Spectra	**Conforms with formula weight**
Assay (HPLC)	**min. 97%**		
NMR P^{31} spectrum	**Conforms with structure**	Water (KF)	**max. 0.4%w/w**
		Solubility (0.1M in ACN)	**Complete, clear**

See also DNA & RNA synthesis section, p. 363-418

DNase remover spray

Cat. No. 048323

DNase remover spray

Molecular biology

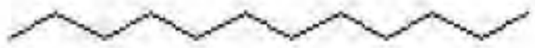
Appearance of solution	**Clear foamy liquid**	RNase activity	**Not detected**
Performance of spray	**Passes test**	Protease activity	**Not detected**
Composition	**Complies**		
DNase activity	**Not detected**		

Dodecane 99%+

CAS [112-40-3]; EC 203-967-9; $C_{12}H_{26}$; M 170.34

D 0.75; m.p. -12°C; b.p. 216 °C;

Danger H:304; P:301+310-331-405-501



Cat. No. 042338

Dodecane 99%+

Spectrofluopure

Color (APHA)	**max. 10**	F365nm (as Quinine)	**max. 1ppb**
Assay (GC, on anhydrous basis)	**min. 99.5%**	T200nm	**min. 25%**
Water (KF)	**max. 0.005%w/w**	T215nm	**min. 65%**
Residue after evaporation	**max. 0.0005%w/w**	T235nm	**min. 95%**
F254nm (as Quinine)	**max. 2ppb**	T>255nm	**min. 99%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 042351

Dodecane 99%+

AR-S glass distilled

Appearance	**Clear colorless liquid**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cr (Chromium)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99%**	Cu (Copper)	**max. 0.02ppm**
Water (KF)	**max. 0.01%w/w**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0005%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Al (Aluminum)	**max. 0.5ppm**	Mn (Manganese)	**max. 0.02ppm**
B (Boron)	**max. 0.02ppm**	Ni (Nickel)	**max. 0.02ppm**
Ba (Barium)	**max. 0.1ppm**	Pb (Lead)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Sn (Tin)	**max. 0.1ppm**
Cd (Cadmium)	**max. 0.05ppm**	Zn (Zinc)	**max. 0.1ppm**

Filtered through 0.2µm, filled under inert gas.

Dodecane 98%+

CAS [112-40-3]; EC 203-967-9; $C_{12}H_{26}$; M 170.33

D 0.75; m.p. -12 °C; b.p. 215-217 °C;

Danger H:304; P:301+310-331-405-501

Specification continues on the next page

Cat. No. 056502

Dodecane 98%+

CP

Appearance	**Clear colorless liquid**
Assay (GC, on anhydrous basis)	**min. 98.0%**
Water (KF)	**max. 0.02%w/w**
Residue after evaporation	**max. 0.001%w/w**

2-(Dodecyloxy)ethanol

Synonym: *Ethylene glycol monododecyl ether, C12E1, Dodecylglycol*

CAS [4536-30-5]; EC 224-886-5; $C_{14}H_{30}O_2$; M 230.39

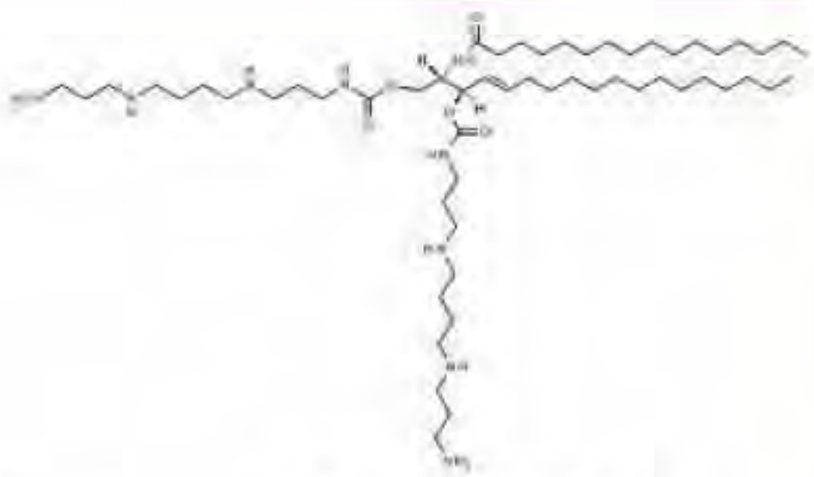
Cat. No. 139380

2-(Dodecyloxy)ethanol

For synthesis

Appearance	**White solidified matter**
Assay (GC, on anhydrous basis)	**min. 99%**
Refractive index (20/D)	**1.443-1.446**
Bromododecane (GC)	**max. 0.5%**

DSCCS (Di-spermyl-CCS)



M 993.9;

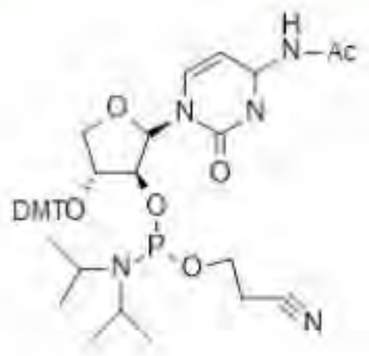
Cat. No. 197080

DSCCS (Di-spermyl-CCS)

For synthesis

Assay (T, argen.)	**97-103%w/w**	NMR H^1 spectrum	**Conforms with structure**
Identity (IR)	**Conforms with standard**	MS Spectra	**ESI+ Conforms with structure**
NMR C^{13} Spectrum	**Conforms with structure**	Water (KF)	**max. 3%w/w**

D-TNA-C Phosphoramidite



$C_{40}H_{50}N_5O_8P$; M 759.8;

Cat. No. 460224

D-TNA-C Phosphoramidite

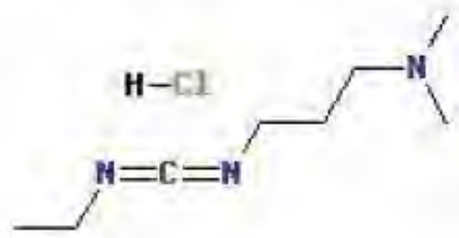
DNA synthesis

Appearance	**White to off-white solid**	NMR P^{31} spectrum	**Complies with structure**
Assay (HPLC)	**min. 95%**	Solubility (0.1M in ACN)	**Complete, clear**
NMR H^1 spectrum	**Complies with structure**		

EDAC HCl

Synonym: *N-(3-Dimethylaminopropyl)-N'-ethylcarbodiimide hydrochloride, N-Ethyl-N'-(3-dimelaminopropyl)carbodiimide hydrochloride, EDAC, EDC hydrochloride, WSC hydrochloride*

CAS [25952-53-8]; EC 247-361-2; $C_8H_{17}N_3HCl$; M 191.70



Warning; H:315-319-335; P:261-280-305+351+338-405-501

Cat. No. 309433

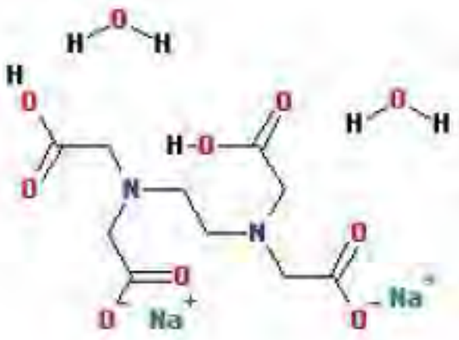
EDAC HCl

Peptide synthesis

Appearance	**White to off-white solid**	Identity (IR)	**Complies**
Assay (T, argen.)	**98.5-101.5%w/w**		
Melting point	**110-115°C**		

Highly hygroscopic.

EDTA Disodium salt dihydrate



Synonym: *Ethylenediaminetetraacetic acid disodium salt dihydrate; Edetate disodium.*

CAS [6381-92-6]; EC 205-358-3; $C_{10}H_{14}N_2Na_2O_8x2H_2O$; M 372.24

Cat. No. 051405

EDTA Disodium salt dihydrate

AR

Assay (on dry basis)	**99.0-101.0%**	pH (5% in water)	**4.0-6.0**
Iron (Fe)	**max. 0.01%**	Nitrilotriacetic acid (Impurity A)	**max. 0.1%w/w**
Heavy metals (as Pb)	**max. 0.005%**	Water insolubles	**max. 0.005%**

Cat. No. 051464

EDTA Disodium salt dihydrate

Meets ACS/EP/BP/USP spec.

Identification A	**Passes EP/BP/USP tests**	Water (KF Oven 180°C)	**8.7-11.4%w/w**
Identification B	**Passes EP/BP/USP tests**	Nitrilotriacetic acid (Impurity A)	**max. 0.1%w/w**
Identification C	**Passes EP/BP/USP tests**	Iron (Fe)	**max. 0.008%**
Identification D	**Passes EP/BP tests**	Heavy metals (as Pb)	**max. 0.002%**
Assay (on dry basis)	**99.0-101.0%**	Calcium (Ca)	**Passes USP test**
Appearance of solution	**Sol. 5% is clear & colorless**	Residual solvents	**Meet the requirements**
pH (5% in water)	**4.0-5.5**		

Cat. No. 051403

EDTA Disodium salt dihydrate

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Assay (on dry basis)	**98.5-101.0%**
Identification B	**Passes EP/BP test**	Nitrilotriacetic acid (Impurity A)	**max. 0.1%w/w**
Identification C	**Passes EP/BP test**	Iron (Fe)	**max. 0.008%**
Identification D	**Passes EP/BP test**	Heavy metals (as Pb)	**max. 0.002%**
Appearance	**White powder**	pH (5% in water)	**4.0-5.5**
Appearance of solution	**Clear colorless solution**		

Cat. No. 051436

EDTA Disodium salt dihydrate

Meets USP spec.

Identification A	**IR Meets the requirements**	pH (5% in water)	**4.0-6.0**
Identification B	**Passes UPS test**	Calcium (Ca)	**Passes USP test**
Identification C	**Passes UPS test**	Nitrilotriacetic acid (Impurity A)	**max. 0.1%w/w**
Assay (on dry basis)	**99.0-101.0%**	Water (KF Oven 180°C)	**8.7-11.4%w/w**
Heavy metals (as Pb)	**max. 0.005%**		

Cat. No. 051423

EDTA Disodium salt dihydrate

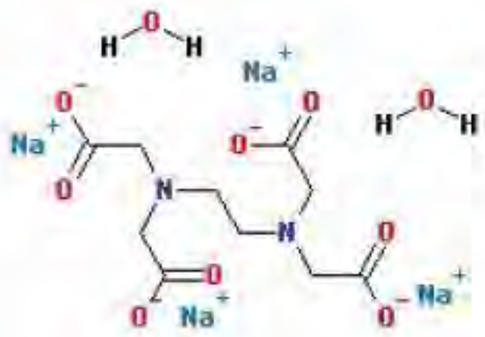
Molecular biology

Application: Chelating agent for metal ions, commonly used in molecular biology to minimize metal ion impurities in reaction buffers.

Appearance	**White powder**	A260nm (0.1M)	**max. 0.2AU**
Assay (on dry basis)	**99-101%**	A280nm (0.1M)	**max. 0.03AU**
Iron (Fe)	**max. 0.01%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
pH (0.1M in water)	**4-5**	Protease activity	**Not detected**
Water (KF Oven 180°C)	**9.0-10.0%w/w**		

EDTA Tetrasodium salt dihydrate

Synonym: *Ethylenediaminetetraacetic acid tetrasodium salt dihydrate*



CAS [10378-23-1]; EC 200-573-9; $C_{10}H_{12}N_2Na_4O_8 \times 2H_2O$; M 416.2

Danger H:302-318; P:264-280-301+312-305+351+338-310

Cat. No. 051323

EDTA Tetrasodium salt dihydrate

Molecular biology

Application: Chelating agent for metal ions, commonly used in molecular biology to minimize metal ion impurities in reaction buffers.

Appearance	**White crystalline powder**	A260nm (0.1M)	**max. 1.5AU**
Solubility (0.1M in water)	**Clear colorless solution**	A280nm (0.1M)	**max. 0.06AU**
Assay (on dry basis)	**99.5-101.0%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	Protease activity	**Not detected**
pH (0.1M in water)	**10.7-11.7**		

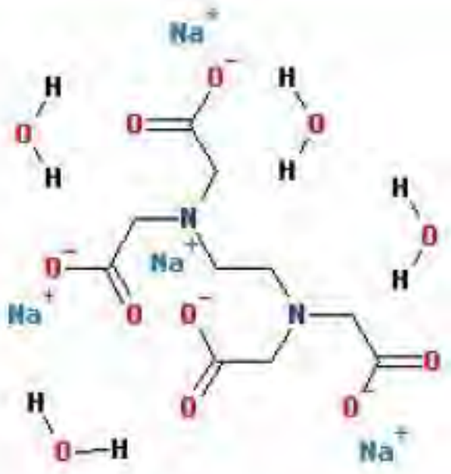
Cat. No. 051302

EDTA Tetrasodium salt dihydrate

CP

Appearance	**White to off-white matter**
Assay (on dry basis)	**97-103%**
pH (0.1M in water)	**10.0-12.5**
Water (KF)	**max. 10%w/w**

EDTA Tetrasodium salt tetrahydrate



Synonym: *Ethylenediaminetetraacetic acid tetrasodium salt tetrahydrate*

CAS [13235-36-4]; EC 200-573-9; $C_{10}H_{12}N_2Na_4O_8 \times 4H_2O$; M 452.22

Cat. No. 053323

EDTA Tetrasodium salt tetrahydrate

Molecular biology

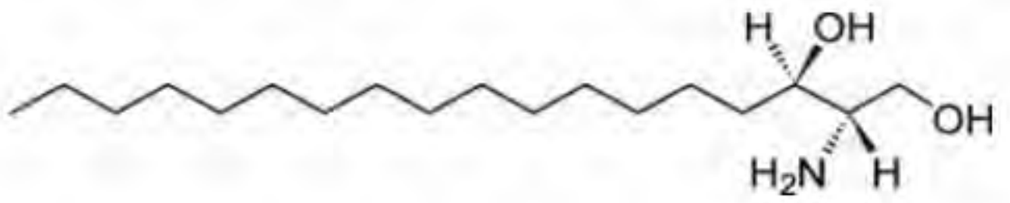
Application: Chelating agent for metal ions, commonly used in molecular biology to minimize metal ion impurities in reaction buffers.

Appearance	**White crystalline powder**	A260nm (0.1M)	**max. 1.5AU**
Solubility (0.1M in water)	**Clear colorless solution**	A280nm (0.1M)	**max. 0.06AU**
Assay (on dry basis)	**99.5-101.0%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	Protease activity	**Not detected**
pH (0.1M in water)	**10.7-11.7**		

D-erythro-Dihydrosphingosine

Synonym: *D-erythro-sphinganine;*

CAS [764-22-7]; $C_{18}H_{39}NO_2$; M 301.51;



Cat. No. 050180

D-erythro-Dihydrosphingosine

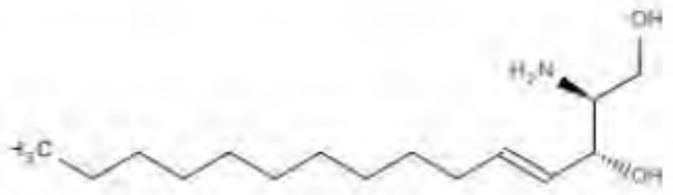
For synthesis

Appearance	**White to off-white solid**
Water (KF)	**max. 2%w/w**
Purity (TLC)	**min. 98%**
NMR H^1 spectrum	**Conforms to structure**

D-erythro-Sphingosine C15

Synonym: *2S-amino-4E-pentadecane-1,3-diol*

CAS [86555-28-4]; $C_{15}H_{31}NO_2$; M 257.4;



Cat. No. 039280

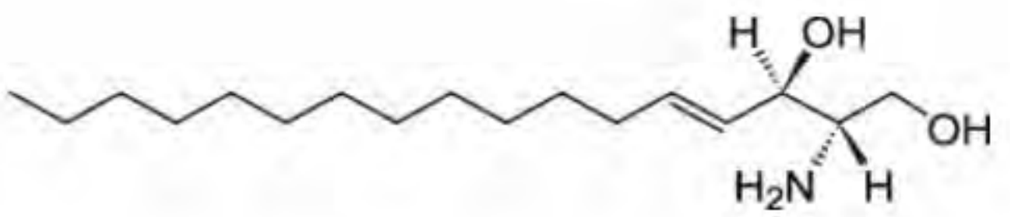
D-erythro-Sphingosine C15

For synthesis

Appearance	**White to off-white solid**	NMR H^1 spectrum	**Conforms to structure**
Purity (TLC)	**min. 98%**	MS Spectra	**ESI+ Corresponds**
Water (KF)	**max. 2%w/w**		

D-erythro-Sphingosine C17

CAS [6918-48-5]; $C_{17}H_{35}NO_2$; M 285.47;



Cat. No. 050280

D-erythro-Sphingosine C17

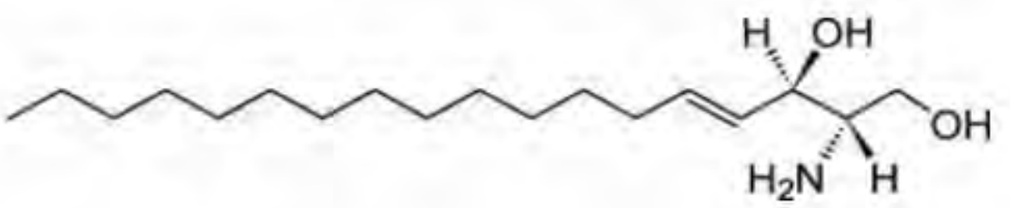
For synthesis

Appearance	**White to off-white solid**
Water (KF)	**max. 2%w/w**
Purity (TLC)	**min. 98%**
NMR H^1 spectrum	**Conforms to structure**

D-erythro-Sphingosine C18

Synonym: *(2S,3R,4E)-2-aminooctadec-4-ene-1,3-diol*

CAS [123-78-4]; EC 204-651-3; $C_{18}H_{37}NO_2$; M 299.5



Specification continues on the next page

Cat. No. 050080

D-erythro-Sphingosine C18

For synthesis

Appearance	**White to off-white solid**	Ca (Calcium)	**max. 0.03%**
Purity (TLC)	**min. 98%**	Fe (Iron)	**max. 0.05%**
Purity (HPLC)	**min. 98%**	K (Potassium)	**max. 0.02%**
NMR H^1 spectrum	**Conforms to structure**	Mg (Magnesium)	**max. 0.005%**
MS Spectra	**ESI+ Corresponds**	Na (Sodium)	**max. 0.05%**
Water (KF)	**max. 2%w/w**	Si (Silicon)	**max. 0.005%**
B (Boron)	**max. 0.03%**	Zn (Zinc)	**max. 0.005%**

D-erythro-Sphingosine C20

CAS [6818-49-6]; $C_{20}H_{41}NO_2$; M 327.6;

Cat. No. 050680

D-erythro-Sphingosine C20

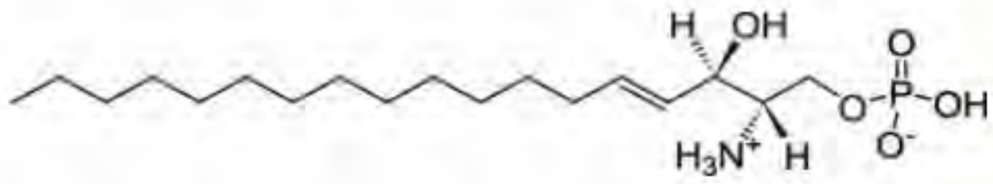
For synthesis

Appearance	**White to off-white solid**	NMR H^1 spectrum	**Conforms to structure**
Water (KF)	**max. 2%w/w**	MS Spectra	**Conforms with structure**
Purity (TLC)	**min. 98%**		

D-erythro-Sphingosine-1-phosphate

Synonym: *sphing-4-enine-1-phosphate; (2S,3R,4E)-2-aminooctadec-4-ene-1,3-diol-1-Phosphate*

CAS [26993-30-6]; $C_{18}H_{38}NO_5P$; M 379.7;



Cat. No. 191080

D-erythro-Sphingosine-1-phosphate

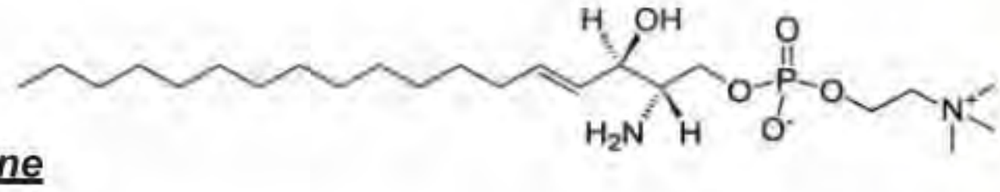
For synthesis

Appearance	**White crystalline powder**
Water (KF)	**max. 2%w/w**
Purity (TLC)	**min. 98%**
NMR H^1 spectrum	**Conforms to structure**

D-erythro-Sphingosine phosphorylcholine

Synonym: *Lyso Sphingomyelin*

CAS [1670-26-4]; $C_{23}H_{49}N_2O_5P$; M 464.6;



Cat. No. 127080

D-erythro-Sphingosine phosphorylcholine

For synthesis

Appearance	**White to off-white solid**	NMR H^1 spectrum	**Conforms to structure**
Water (KF)	**max. 2%w/w**	MS Spectra	**Conforms to structure**
Purity (TLC)	**min. 98%**		

See also Sphingolipids & Phospholipids section, p. 459-474

Ethanol absolute (Dehydrated)

Synonym: *Ethyl alcohol*

CAS [64-17-5]; EC 200-578-6; C_2H_5OH; M 46.04

D 0.79; m.p. -114 °C; b.p. 78 °C; UN 1170,3,II,F1

Danger H:225; P:210-240-241-280-303+361+353-405-501

Cat. No. 052541

Ethanol absolute (Dehydrated)

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	Ag (Silver)	**max. 50ppb**
Color (APHA)	**max. 10**	Al (Aluminum)	**max. 20ppb**
Assay (GC, on anhydrous basis)	**min. 99.95%**	Ba (Barium)	**max. 50ppb**
Residue after evaporation	**max. 0.0001%w/w**	Bi (Bismuth)	**max. 50ppb**
Acidity (as Acetic acid)	**max. 0.002%**	Ca (Calcium)	**max. 50ppb**
Alkalinity (as Ammonia)	**max. 0.0005%**	Cd (Cadmium)	**max. 50ppb**
MS-ESI+ (as Reserpine)	**max. 20ppb**	Co (Cobalt)	**max. 20ppb**
H.Peak by PDAD 235-400nm	**max. 0.002AU**	Cr (Chromium)	**max. 20ppb**
Grad. elution H.Peak at 235nm	**max. 0.002AU**	Fe (Iron)	**max. 20ppb**
Grad. elution drift at 235nm	**max. 0.010AU**	K (Potassium)	**max. 50ppb**
Grad. elution H.Peak at 254nm	**max. 0.001AU**	Li (Lithium)	**max. 50ppb**
Grad. elution drift at 254nm	**max. 0.005AU**	Mg (Magnesium)	**max. 20ppb**
F254nm (as Quinine)	**max. 1ppb**	Mn (Manganese)	**max. 20ppb**
F365nm (as Quinine)	**max. 1ppb**	Mo (Molybdenum)	**max. 50ppb**
T210nm	**min. 40%**	Na (Sodium)	**max. 50ppb**
T225nm	**min. 60%**	Ni (Nickel)	**max. 20ppb**
T240nm	**min. 85%**	Pb (lead)	**max. 20ppb**
T260nm	**min. 98%**	Sn (Tin)	**max. 50ppb**
Water (KF)	**max. 0.1%w/w**	Sr (Strontium)	**max. 50ppb**
		Zn (Zinc)	**max. 50ppb**

Filtered through 0.1µm, filled under inert gas.

Cat. No. 052506

Ethanol absolute (Dehydrated)

HPLC

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.1%w/w**
Color (APHA)	**max. 10**	T210nm	**min. 35%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T240nm	**min. 85%**
Grad. elution H.Peak at 235nm	**max. 0.005AU**	T260nm	**min. 98%**
Grad. elution H.Peak at 254nm	**max. 0.002AU**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 052516

Ethanol absolute (Dehydrated)

HPLC Preparative

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.1%w/w**
Color (APHA)	**max. 10**	T210nm	**min. 30%**
Acidity (as Acetic acid)	**max. 0.002%**	T240nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T260nm	**min. 95%**
Residue after evaporation	**max. 0.0005%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 052538

Ethanol absolute (Dehydrated)

Spectrofluopure

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.1%w/w**
Color (APHA)	**max. 10**	T210nm	**min. 35%**
F254nm (as Quinine)	**max. 2ppb**	T240nm	**min. 85%**
F365nm (as Quinine)	**max. 1ppb**	T260nm	**min. 98%**
Assay (GC, on anhydrous basis)	**min. 99.9%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 052584

Ethanol absolute (Dehydrated)

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0003%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.1%w/w**
Color (APHA)	**max. 10**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F254nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
F365nm (as Quinine)	**max. 1ppb**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	GC/ECD volatile impu. (as E. Dibromide)	**max. 5ng/ml**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	T210nm	**min. 35%**
PAH test (<2ppb by HPLC)	**Passes test**		

Cat. No. 052560

Ethanol absolute (Dehydrated)

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Acidity (as Acetic acid)	**max. 0.002%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Water (KF)	**max. 0.1%w/w**
GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**	Residue after evaporation	**max. 0.0002%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 052510

Ethanol absolute (Dehydrated)

MOS

Appearance	**Clear colorless liquid**	Co (Cobalt)	**max. 20ppb**
Acidity (as Acetic acid)	**max. 0.002%**	Cr (Chromium)	**max. 20ppb**
Alkalinity (as Ammonia)	**max. 0.0003%**	Cu (Copper)	**max. 10ppb**
Color (APHA)	**max. 10**	Fe (Iron)	**max. 30ppb**
Subs. darkened by Sulfuric Acid	**Passes test**	Li (Lithium)	**max. 30ppb**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Mg (Magnesium)	**max. 30ppb**
Residue after evaporation	**max. 0.0003%w/w**	Mn (Manganese)	**max. 20ppb**
Subs. reducing $KMnO_4$	**Passes test**	Mo (Molybdenum)	**max. 30ppb**
Water (KF)	**max. 0.1%w/w**	Ni (Nickel)	**max. 20ppb**
Chloride (Cl)	**max. 1ppm**	Pb (lead)	**max. 30ppb**
Ag (Silver)	**max. 20ppb**	Sb (Antimony)	**max. 30ppb**
Al (Aluminum)	**max. 20ppb**	Si (Silicon)	**max. 50ppb**
As (Arsenic)	**max. 20ppb**	Sn (Tin)	**max. 30ppb**
B (Boron)	**max. 10ppb**	Ti (Titanium)	**max. 20ppb**
Ba (Barium)	**max. 20ppb**	V (Vanadium)	**max. 50ppb**
Be (Beryllium)	**max. 20ppb**	Zn (Zinc)	**max. 50ppb**
Cd (Cadmium)	**max. 20ppb**	Particle count > 0.5µm	**max. 100P/ml**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 052505

Ethanol absolute (Dehydrated)

AR

Appearance	**Clear colorless liquid**	Methanol	**max. 0.02%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.0005%w/w**
Alkalinity (as Ammonia)	**max. 0.001%**	Subs. reducing $KMnO_4$	**Passes ACS test**
Color (APHA)	**max. 5**	Water (KF)	**max. 0.2%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Relative density (20°C)	**0.790-0.793**
Acetone & 2-Propanol	**Passes ACS test**	Solubility in Water	**Passes ACS test**
Subs. darkened by Sulfuric Acid	**Passes ACS test**		

Cat. No. 052551

Ethanol absolute (Dehydrated)

AR-S glass distilled

Appearance	**Clear colorless liquid**	Ba (Barium)	**max. 0.1ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Ca (Calcium)	**max. 0.5ppm**
Alkalinity (as Ammonia)	**max. 0.001%**	Cd (Cadmium)	**max. 0.05ppm**
Color (APHA)	**max. 5**	Co (Cobalt)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Cr (Chromium)	**max. 0.02ppm**
Acetone & 2-Propanol	**Passes ACS test**	Cu (Copper)	**max. 0.02ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Fe (Iron)	**max. 0.1ppm**
Methanol	**max. 0.02%**	Mg (Magnesium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0002%w/w**	Mn (Manganese)	**max. 0.02ppm**
Subs. reducing $KMnO_4$	**Passes ACS test**	Ni (Nickel)	**max. 0.02ppm**
Water (KF)	**max. 0.2%w/w**	Pb (Lead)	**max. 0.1ppm**
Solubility in Water	**Passes ACS test**	Sn (Tin)	**max. 0.1ppm**
Al (Aluminum)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**		

Cat. No. 052564

Ethanol absolute (Dehydrated)

Meets ACS/EP/BP/USP spec.

Identification	**Passes test A,B**	Specific gravity (15.56°C)	**max. 0.7962**
Appearance	**Clear colorless liquid**	Clarity of solution	**Passes USP test**
Solubility (5% in Water)	**Clear**	Color of solution	**Passes USP test**
Acidity or Alkalinity	**Passes USP/EP/BP tests**	Identity (IR)	**Passes test (neat)**
Relative density (20°C)	**0.790-0.793**	Cr (Chromium)	**max. 0.1ppm**
Assay	**min. 99.5%v/v**	Cu (Copper)	**max. 0.1ppm**
Purity (GC, on Anhydrous basis)	**min. 99.95%**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Ir (Iridium)	**max. 0.1ppm**
Volatile impurities	**Meets the requirements**	Mn (Manganese)	**max. 0.1ppm**
Acetal and Acetaldehyde	**max. 0.001%**	Mo (Molybdenum)	**max. 0.1ppm**
Benzene	**max. 0.0002%v/v**	Ni (Nickel)	**max. 0.1ppm**
Methanol	**max. 0.02%**	Os (Osmium)	**max. 0.1ppm**
Sum of other impurities	**max. 0.03%**	Pd (Palladium)	**max. 0.1ppm**
A240nm	**max. 0.08AU**	Pt (Platinum)	**max. 0.1ppm**
A250nm	**max. 0.06AU**	Rh (Rhodium)	**max. 0.1ppm**
A260nm	**max. 0.06AU**	Ru (Ruthenium)	**max. 0.1ppm**
A270-340nm	**max. 0.02AU**	V (Vanadium)	**max. 0.1ppm**
Absorbance curve	**Passes test EP/BP/USP**	Zn (Zinc)	**max. 0.1ppm**
Acetone & 2-Propanol	**Passes USP/ACS tests**		

Filtered through 0.2um.

Cat. No. 052503

Ethanol absolute (Dehydrated)

Meets EP/BP spec.

Appearance	**Clear colorless liquid**	Solubility (5% in Water)	**Clear**
Identification A	**Passes EP/BP test**	Acidity or Alkalinity	**Passes EP/BP test**
Identification B	**Passes EP/BP test**	Relative density (20°C)	**0.790-0.793**
Identification C	**Passes EP/BP test**	Cr (Chromium)	**max. 0.1ppm**
Identification D	**Passes EP/BP test**	Cu (Copper)	**max. 0.1ppm**
Assay	**min. 99.5%v/v**	Fe (Iron)	**max. 0.1ppm**
Purity (GC, on Anhydrous basis)	**min. 99.95%**	Ir (Iridium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.002%w/w**	Mn (Manganese)	**max. 0.1ppm**
Volatile impurities	**Passes EP/BP test**	Mo (Molybdenum)	**max. 0.1ppm**
Acetal and Acetaldehyde	**max. 0.001%**	Ni (Nickel)	**max. 0.1ppm**
Benzene	**max. 0.0002%v/v**	Os (Osmium)	**max. 0.1ppm**
Methanol	**max. 0.01%**	Pd (Palladium)	**max. 0.1ppm**
Sum of other impurities	**max. 0.03%**	Pt (Platinum)	**max. 0.1ppm**
A240nm	**max. 0.08AU**	Rh (Rhodium)	**max. 0.1ppm**
A250nm	**max. 0.06AU**	Ru (Ruthenium)	**max. 0.1ppm**
A260nm	**max. 0.06AU**	V (Vanadium)	**max. 0.1ppm**
A270-340nm	**max. 0.02AU**	Zn (Zinc)	**max. 0.1ppm**
Absorbance curve	**Smooth curve**		

Cat. No. 052536

Ethanol absolute (Dehydrated)

Meets USP spec.

Identification	**Passes USP tests**	A270-340nm	**max. 0.02AU**
Appearance	**Clear colorless liquid**	Absorbance curve	**Smooth curve**
Color (APHA)	**max. 10**	Identity (IR)	**Passes test (neat)**
Clarity of solution	**Passes USP test**	Cr (Chromium)	**max. 0.1ppm**
Assay	**min. 99.5%v/v**	Cu (Copper)	**max. 0.1ppm**
Purity (GC, on Anhydrous basis)	**min. 99.95%**	Fe (Iron)	**max. 0.1ppm**
Acidity or Alkalinity	**Passes USP test**	Ir (Iridium)	**max. 0.1ppm**
Color of solution	**Passes USP test**	Mn (Manganese)	**max. 0.1ppm**
Specific gravity (15.56°C)	**max. 0.7962**	Mo (Molybdenum)	**max. 0.1ppm**
Residue after evaporation	**max. 0.002%w/w**	Ni (Nickel)	**max. 0.1ppm**
Volatile impurities	**Passes USP test**	Os (Osmium)	**max. 0.1ppm**
Acetal and Acetaldehyde	**max. 0.001%**	Pd (Palladium)	**max. 0.1ppm**
Benzene	**max. 0.0002%v/v**	Pt (Platinum)	**max. 0.1ppm**
Methanol	**max. 0.02%**	Rh (Rhodium)	**max. 0.1ppm**
Sum of other impurities	**max. 0.03%**	Ru (Ruthenium)	**max. 0.1ppm**
A240nm	**max. 0.08AU**	V (Vanadium)	**max. 0.1ppm**
A250nm	**max. 0.06AU**	Zn (Zinc)	**max. 0.1ppm**
A260nm	**max. 0.06AU**		

Filtered through 0.2µm.

Cat. No. 052559

Ethanol absolute (Dehydrated)

Supra dry

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.9%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.005%w/w**

Cat. No. 052547

Ethanol absolute (Dehydrated)

Extra dry

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.9%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 5**	Water (KF)	**max. 0.01%w/w**

Cat. No. 052523

Ethanol absolute (Dehydrated)

Molecular biology

Appearance	**Clear colorless liquid**	Subs. reducing $KMnO_4$	**Passes test**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.2%w/w**
Color (APHA)	**max. 10**	DNase activity	**Not detected**
Subs. darkened by Sulfuric Acid	**Passes test**	RNase activity	**Not detected**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Protease activity	**Not detected**
Residue after evaporation	**max. 0.001%w/w**		

Cat. No. 052502

Ethanol absolute (Dehydrated)

CP

Acidity (as Acetic acid)	**max. 0.005%**	Residue after evaporation	**max. 0.005%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.5%w/w**
Assay (GC, on anhydrous basis)	**min. 99%**		

Ethanol reagent alcohol (Denatured)

D 0.79; b.p. 78 °C; UN 1993,3,II,F1;

Danger H:225-371; P:210-241-260-303+361+353-405-501

Cat. No. 055705

Ethanol reagent alcohol (Denatured)

AR

Appearance	**Clear colorless liquid**	2-Propanol	**4.5-5.5%**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.5%w/w**
Ethanol	**90-91%**	Residue after evaporation	**max. 0.001%w/w**
Methanol	**4-5%**		

Ethanol 96%

Synonym: Ethyl alcohol

CAS [64-17-5]; EC 200-578-6; C_2H_6O; M 46.06

Danger H:225; P:210-240-241-280-303+361+353-501

Cat. No. 052108

Ethanol 96%

Spectropure

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 10**	T210nm	**min. 35%**
Assay	**95-97%v/v**	T240nm	**min. 85%**
Purity (GC, on anhydrous basis)	**min. 99.9%**	T260nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 052105

Ethanol 96%

AR

Appearance	**Clear colorless liquid**	Acetone & 2-Propanol	**Passes ACS test**
Acidity (as Acetic acid)	**max. 0.002%**	Methanol	**max. 0.02%**
Alkalinity (as Ammonia)	**max. 0.001%**	Purity (GC, on anhydrous basis)	**min. 99.8%**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.0005%w/w**
Assay	**95-97%v/v**	Subs. reducing $KMnO_4$	**Passes ACS test**
Subs. darkened by Sulfuric Acid	**Passes ACS test**	Solubility in Water	**Passes ACS test**

Cat. No. 052164

Ethanol 96%

Meets ACS/EP/BP/USP spec.

Appearance	**Clear colorless liquid**	Absorbance curve	**Smooth curve**
Identification	**Passes EP/BP/USP tests**	Solubility (5% in Water)	**Complete, clear**
Acidity or Alkalinity	**Passes EP/BP/USP tests**	Residue after evaporation	**max. 0.002%w/w**
Clarity and color of sol.	**Passes USP test**	Acetone & 2-Propanol	**Passes ACS/USP tests**
Relative density (20°C)	**0.805-0.812**	Cr (Chromium)	**max. 0.1ppm**
Specific gravity	**0.812-0.816**	Cu (Copper)	**max. 0.1ppm**
Purity (GC, on anhydrous basis)	**min. 99.95%**	Fe (Iron)	**max. 0.1ppm**
Assay	**95.1-96.0%v/v**	Ir (Iridium)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Mn (Manganese)	**max. 0.1ppm**
Volatile impurities	**Meets the requirements**	Mo (Molybdenum)	**max. 0.1ppm**
Acetal and Acetaldehyde	**max. 0.001%**	Ni (Nickel)	**max. 0.1ppm**
Benzene	**max. 0.0002%v/v**	Os (Osmium)	**max. 0.1ppm**
Methanol	**max. 0.01%**	Pd (Palladium)	**max. 0.1ppm**
Sum of other impurities	**max. 0.03%**	Pt (Platinum)	**max. 0.1ppm**
A240nm	**max. 0.08AU**	Rh (Rhodium)	**max. 0.1ppm**
A250nm	**max. 0.06AU**	Ru (Ruthenium)	**max. 0.1ppm**
A260nm	**max. 0.06AU**	V (Vanadium)	**max. 0.1ppm**
A270-340nm	**max. 0.02AU**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 052103

Ethanol 96%

Meets EP/BP spec.

Appearance	**Clear colorless liquid**	A270-340nm	**max. 0.02AU**
Solubility (5% in Water)	**Clear**	Absorbance curve	**Smooth curve**
Acidity or Alkalinity	**Passes EP/BP test**	Cr (Chromium)	**max. 0.1ppm**
Identification	**Passes test A,C and D**	Cu (Copper)	**max. 0.1ppm**
Relative density (20°C)	**0.805-0.812**	Fe (Iron)	**max. 0.1ppm**
Assay	**95.1-96.9%v/v**	Ir (Iridium)	**max. 0.1ppm**
Purity (GC, on anhydrous basis)	**min. 99.95%**	Mn (Manganese)	**max. 0.1ppm**
Residue after evaporation	**max. 0.002%w/w**	Mo (Molybdenum)	**max. 0.1ppm**
Volatile impurities	**Passes EP/BP test**	Ni (Nickel)	**max. 0.1ppm**
Acetal and Acetaldehyde	**max. 0.001%**	Os (Osmium)	**max. 0.1ppm**
Benzene	**max. 0.0002%v/v**	Pd (Palladium)	**max. 0.1ppm**
Methanol	**max. 0.01%**	Pt (Platinum)	**max. 0.1ppm**
Sum of other impurities	**max. 0.03%**	Rh (Rhodium)	**max. 0.1ppm**
A240nm	**max. 0.08AU**	Ru (Ruthenium)	**max. 0.1ppm**
A250nm	**max. 0.06AU**	V (Vanadium)	**max. 0.1ppm**
A260nm	**max. 0.06AU**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 052136

Ethanol 96%

Meets USP spec.

Appearance	**Clear colorless liquid**	A270-340nm	**max. 0.02AU**
Color (APHA)	**max. 10**	Absorbance curve	**Smooth curve**
Clarity of solution	**Passes USP test**	Cr (Chromium)	**max. 0.1ppm**
Assay	**94.9-96.0%v/v**	Cu (Copper)	**max. 0.1ppm**
Purity (GC, on anhydrous basis)	**min. 99.95%**	Fe (Iron)	**max. 0.1ppm**
Acidity or Alkalinity	**Passes USP test**	Ir (Iridium)	**max. 0.1ppm**
Specific gravity	**0.812-0.816**	Mn (Manganese)	**max. 0.1ppm**
Residue after evaporation	**max. 0.002%w/w**	Mo (Molybdenum)	**max. 0.1ppm**
Volatile impurities	**Passes USP test**	Ni (Nickel)	**max. 0.1ppm**
Acetal and Acetaldehyde	**max. 0.001%**	Os (Osmium)	**max. 0.1ppm**
Benzene	**max. 0.0002%v/v**	Pd (Palladium)	**max. 0.1ppm**
Methanol	**max. 0.02%**	Pt (Platinum)	**max. 0.1ppm**
Sum of other impurities	**max. 0.03%**	Rh (Rhodium)	**max. 0.1ppm**
A240nm	**max. 0.08AU**	Ru (Ruthenium)	**max. 0.1ppm**
A250nm	**max. 0.06AU**	V (Vanadium)	**max. 0.1ppm**
A260nm	**max. 0.06AU**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 052102

Ethanol 96%

CP

Assay	**95-97%v/v**	Residue after evaporation	**max. 0.003%w/w**
Purity (GC, on anhydrous basis)	**min. 99%**	Methanol	**max. 0.2%**

Ethanol 96% Denatured

Synonym: *Ethyl alcohol denatured*

CAS [64-17-5]; EC 200-578-6; C_2H_5OH; M 46.0414

Danger H:225-371; P:210-241-260-303+361+353

Cat. No. 054202

Ethanol 96% Denatured

CP

Appearance	**Clear colorless liquid**	Ethanol	**94-97%**
Residue after evaporation	**max. 0.001%w/w**	Methanol	**3-6%**
Total alcohols content	**95-97%v/v**	Acidity (as Acetic acid)	**max. 0.01%**
Water	**3-5%**		

Ethanol 96% Denatured blue

Synonym: *Ethyl alcohol denatured*

CAS [64-17-5]; EC 200-578-6; C_2H_5OH; M 46.0414

Danger H:225-332-371; P:210-241-260-303+361+353

Cat. No. 058002

Ethanol 96% Denatured blue

CP

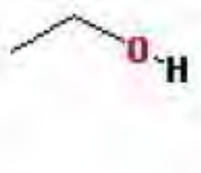
Appearance	**Clear blue liquid**	Methanol	**3-6%**
Total alcohols content	**95-97%v/v**	Water	**3-5%**
Ethanol	**94-97%**		

Ethanol 70%

Synonym: *Ethyl alcohol*

CAS [64-17-5]; EC 200-578-6; C_2H_5OH; M 46.04

Danger H:225; P:210-240-241-280-303+361+353



Cat. No. 052255

Ethanol 70%

AR sterile

Appearance	**Clear colorless liquid**	Methanol	**max. 0.02%**
Acidity (as Acetic acid)	**max. 0.002%**	Purity (GC, on Anhydrous basis)	**min. 99.7%**
Alkalinity (as Ammonia)	**max. 0.001%**	Residue after evaporation	**max. 0.0005%w/w**
Assay	**68-72%v/v**	Subs. reducing $KMnO_4$	**Passes test**
Acetone & 2-Propanol	**Passes test**	Sterility test	**Passes test**

Cat. No. 052287

Ethanol 70%

Sterile

Appearance	**Clear colorless liquid**	Volatile impurities	**Passes EP/BP test**
Solubility (5% in Water)	**Clear solution**	Acetal and Acetaldehyde	**max. 0.001%**
Acidity or Alkalinity	**Passes EP/BP test**	Benzene	**max. 0.0002%v/v**
Identification	**Passes test A, C and D**	Methanol	**max. 0.01%**
Relative density (20°C)	**0.8861-0.8884**	Sum of other impurities	**max. 0.03%**
Assay	**69.5-70.4%v/v**	A240nm	**max. 0.08AU**
Subs. reducing $KMnO_4$	**Passes test**	A250nm	**max. 0.06AU**
Purity (GC, on Anhydrous basis)	**min. 99.5%**	A260nm	**max. 0.06AU**
Residue after evaporation	**max. 0.002%w/w**	A270-340nm	**max. 0.02AU**
Sterility test	**Passes test**		

Filtered through 0.2µm, aseptically filled.

Cat. No. 052203

Ethanol 70%

Meets EP/BP spec.

Appearance	**Clear colorless liquid**	A270-340nm	**max. 0.02AU**
Solubility (5% in Water)	**Clear solution**	Absorbance curve	**Smooth curve**
Acidity or Alkalinity	**Passes EP/BP test**	Cr (Chromium)	**max. 0.1ppm**
Identification	**Passes test A,C and D**	Cu (Copper)	**max. 0.1ppm**
Relative density (20°C)	**0.8861-0.8884**	Fe (Iron)	**max. 0.1ppm**
Assay	**69.5-70.4%v/v**	Ir (Iridium)	**max. 0.1ppm**
Purity (GC, on Anhydrous basis)	**min. 99.5%**	Mn (Manganese)	**max. 0.1ppm**
Residue after evaporation	**max. 0.002%w/w**	Mo (Molybdenum)	**max. 0.1ppm**
Volatile impurities	**Passes EP/BP test**	Ni (Nickel)	**max. 0.1ppm**
Acetal and Acetaldehyde	**max. 0.001%**	Os (Osmium)	**max. 0.1ppm**
Benzene	**max. 0.0002%v/v**	Pd (Palladium)	**max. 0.1ppm**
Methanol	**max. 0.01%**	Pt (Platinum)	**max. 0.1ppm**
Sum of other impurities	**max. 0.03%**	Rh (Rhodium)	**max. 0.1ppm**
A240nm	**max. 0.08AU**	Ru (Ruthenium)	**max. 0.1ppm**
A250nm	**max. 0.06AU**	V (Vanadium)	**max. 0.1ppm**
A260nm	**max. 0.06AU**	Zn (Zinc)	**max. 0.1ppm**

Filtered through 0.2µm.

Cat. No. 052202

Ethanol 70%

CP

Appearance	**Clear colorless liquid**
Assay	**68-72%v/v**
Residue after evaporation	**max. 0.005%w/w**

Ethanol 70% Denatured

Synonym: Ethyl alcohol denatured

CAS [64-17-5]; EC 200-578-6; C_2H_5OH; M 46.0414

Danger H:225-371; P:210-241-260-303+361+353-405

Cat. No. 059702

Ethanol 70% Denatured

CP

Appearance	**Clear colorless liquid**	Ethanol	**94-97%**
Residue after evaporation	**max. 0.005%w/w**	Methanol	**3-6%**
Total alcohols content	**68-72%v/v**	Water	**28-32%**

Ethyl alcohol-d anhydrous, 99.5 atom%D

CAS [925-93-9]; EC 213-128-9; DC_2H_5O; M 47.07

D 0.8; b.p. 78 °C; UN 1170,3,II,F1;

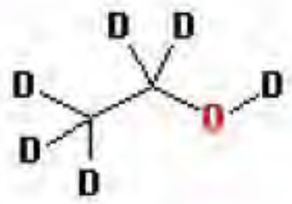
Danger H:225; P:210-240-241-280-303+361+353-501

Cat. No. 304895 ***Ethyl alcohol-d anhydrous, 99.5 atom%D***

For NMR

Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.5% H_2O+D_2O**

Ethyl-d5 alcohol-d anhydrous, 99.5 atom%



CAS [1516-08-1]; C_2D_6O; M 52.12; D 0.89

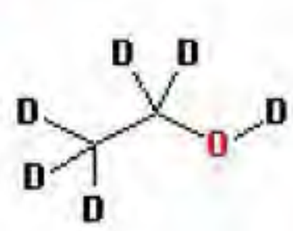
Danger H:225; P:210-240-241-280-303+361+353-501

Cat. No. 305095 ***Ethyl-d5 alcohol-d anhydrous, 99.5 atom%***

For NMR

Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 1% H_2O+D_2O**

Ethyl-d5 alcohol-d anhydrous, 99 atom%D



CAS [1516-08-1]; C_2D_6O; M 52.12; D 0.89

Danger H:225; P:210-240-241-280-303+361+353-501

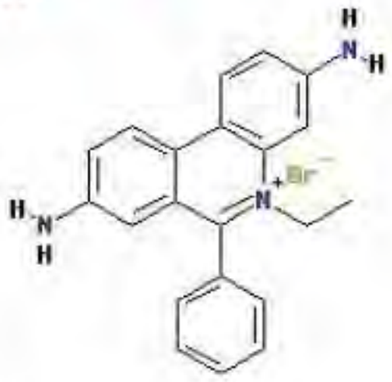
Cat. No. 304995 ***Ethyl-d5 alcohol-d anhydrous, 99 atom%D***

For NMR

Enrichment (NMR)	**min. 99Atom%D**
Water (KF)	**max. 1% H_2O+D_2O**

Ethidium bromide

Synonym: *3,8-Diamino-5-ethyl-6-phenylphenanthridinium bromide, EtBr, Homidium bromide*



CAS [1239-45-8]; EC 214-984-6; $C_{21}H_{20}BrN_3$; M 394.3

Danger H:302-330-341; P:260-284-310-320-405

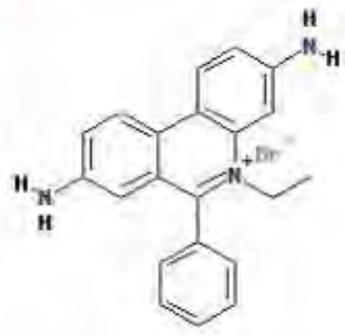
Cat. No. 054323 ***Ethidium bromide***

Molecular biology

Application: An aromatic cationic dye, commonly used for fluorometric detection of double stranded nucleic acids. Also acts as an RNA polymerase inhibitor, and in separation of high molecular weight DNA's.

Appearance	**Burgundy powder**	A525nm (1%/MeOH)	**145-165AU**
Loss on drying (105°C)	**max. 5%**	DNase activity	**Not detected**
Assay (T, argen.)	**98-102%w/w**	RNase activity	**Not detected**
Absorption max. (MeOH)	**524-527nm**	Protease activity	**Not detected**

Ethidium bromide 1%



CAS [1239-45-8]; EC 214-984-6; $C_{21}H_{20}BrN_3$; M 394.32

Warning; H:341; P:201-202-281-308+313-405

Cat. No. 054123

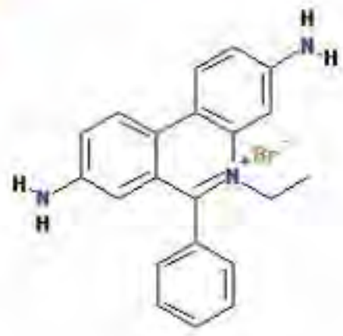
Ethidium bromide 1%

Molecular biology

Application: An aromatic cationic dye, commonly used for fluorometric detection of double stranded nucleic acids. Also acts as an RNA polymerase inhibitor, and in separation of high molecular weight DNA's.

Appearance	**Dark red liquid**	DNase activity	**Not detected**
A480 nm (1%)	**140-160AU**	RNase activity	**Not detected**
Assay	**0.95-1.05%w/v**	Protease activity	**Not detected**
Purity (T, Dry)	**min. 98%w/w**		

Ethidium bromide 0.02%



CAS [1239-45-8]; EC 214-984-6; $C_{21}H_{20}BrN_3$; M 394.32

Warning; H:341; P:201-202-281-308+313-405

Cat. No. 054523

Ethidium bromide 0.02%

Molecular biology

Application: An aromatic cationic dye, commonly used for fluorometric detection of double stranded nucleic acids. Also acts as an RNA polymerase inhibitor, and in separation of high molecular weight DNA's.

Appearance	**Clear orange solution**	DNase activity	**Not detected**
Assay	**0.018-0.022%w/v**	RNase activity	**Not detected**
Purity (T, Dry)	**min. 98%w/w**	Protease activity	**Not detected**
A480nm (0.02%)	**2.7-3.3AU**		

2-Ethoxyethanol

Synonym: *Cellosolve®, Ethyl glycol, Ethylene glycol monoethyl ether*

CAS [110-80-5]; EC 203-804-1; $C_4H_{10}O_2$; M 90.12

D 0.93; m.p. -100 °C; b.p. 135 °C; UN 1171,3,III,F1

Danger H:226-302-312-332-360FD; P:210-241-261-303+361+353

Cat. No. 051702

2-Ethoxyethanol

CP

Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 98%**
Water (KF)	**max. 0.5%w/w**

2-Ethoxyethyl acetate

Synonym: *1-Acetoxy-2-ethoxyethane, Cellosolve® acetate, Ethylene glycol monoethyl ether acetate*

CAS [111-15-9]; EC 203-839-2; $C_6H_{12}O_3$; M 132.16

D 0.970; m.p. -61 °C; b.p. 156 °C; UN 1172,3,III,F1

Danger H:226-302-312-332-360FD; P:210-241-261-303+361+353

Specification continues on the next page

Cat. No. 051902

2-Ethoxyethyl acetate

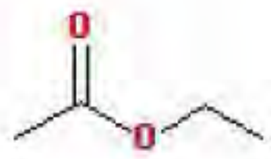
CP

Appearance	**Clear liquid**	Water (KF)	**max. 0.1%w/w**
Assay (GC, on anhydrous basis)	**min. 98%**	Acidity (as Acetic acid)	**max. 0.05%**
Residue after evaporation	**max. 0.005%w/w**		

Ethyl acetate

CAS [141-78-6]; EC 205-500-4; $C_4H_8O_2$; M 88.11
D 0.902; m.p. -83.5 °C; b.p. 75-77.5 °C; UN 1173,3,II,F1

Danger H:225-319-336; EUH:066; P:210-241-303+361+353-305+351+338-501



Cat. No. 054041

Ethyl acetate

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	Ba (Barium)	**max. 50ppb**
Acidity (as Acetic acid)	**max. 0.002%**	Bi (Bismuth)	**max. 50ppb**
Alkalinity (as Ammonia)	**max. 0.0005%**	Ca (Calcium)	**max. 50ppb**
Color (APHA)	**max. 10**	Cd (Cadmium)	**max. 50ppb**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Co (Cobalt)	**max. 20ppb**
Residue after evaporation	**max. 0.0003%w/w**	Cr (Chromium)	**max. 20ppb**
Water (KF)	**max. 0.02%w/w**	Fe (Iron)	**max. 20ppb**
F254nm (as Quinine)	**max. 2.0ppb**	K (Potassium)	**max. 50ppb**
F365nm (as Quinine)	**max. 1.0ppb**	Mg (Magnesium)	**max. 20ppb**
MS-ESI+ (as Reserpine)	**max. 30ppb**	Mn (Manganese)	**max. 20ppb**
T255nm	**min. 25%**	Mo (Molybdenum)	**max. 50ppb**
T260nm	**min. 80%**	Na (Sodium)	**max. 50ppb**
T>275nm	**min. 98%**	Ni (Nickel)	**max. 20ppb**
A255nm	**max. 0.60AU**	Pb (lead)	**max. 20ppb**
A260nm	**max. 0.10AU**	Sn (Tin)	**max. 50ppb**
A275nm	**max. 0.01AU**	Sr (Strontium)	**max. 50ppb**
Ag (Silver)	**max. 50ppb**	Zn (Zinc)	**max. 50ppb**
Al (Aluminum)	**max. 20ppb**		

Filtered through 0.1µm, filled under inert gas.

Cat. No. 054078

Ethyl acetate

LC-MS

Appearance	**Clear colorless liquid**	Co (Cobalt)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.003%**	Cr (Chromium)	**max. 0.02ppm**
Alkalinity (as Ammonia)	**max. 0.0005%**	Cu (Copper)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Fe (Iron)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	K (Potassium)	**max. 0.05ppm**
Residue after evaporation	**max. 0.0005%w/w**	Li (Lithium)	**max. 0.1ppm**
Water (KF)	**max. 0.05%w/w**	Mg (Magnesium)	**max. 0.05ppm**
T260nm	**min. 75%**	Mn (Manganese)	**max. 0.02ppm**
T275nm	**min. 98%**	Mo (Molybdenum)	**max. 0.05ppm**
LC-MS suitability test	**Complies**	Na (Sodium)	**max. 0.05ppm**
Ag (Silver)	**max. 0.1ppm**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.05ppm**	Pb (Lead)	**max. 0.02ppm**
Ba (Barium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.05ppm**
Bi (Bismuth)	**max. 0.1ppm**	Sr (Strontium)	**max. 0.05ppm**
Ca (Calcium)	**max. 0.05ppm**	Zn (Zinc)	**max. 0.1ppm**
Cd (Cadmium)	**max. 0.05ppm**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 054006

Ethyl acetate

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.05%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	T260nm	**min. 75%**
Color (APHA)	**max. 10**	T275nm	**min. 95%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T300nm	**min. 98%**
Residue after evaporation	**max. 0.0005%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 054016

Ethyl acetate

HPLC Preparative

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.1%w/w**
Color (APHA)	**max. 10**	T260nm	**min. 60%**
Acidity (as Acetic acid)	**max. 0.005%**	T275nm	**min. 85%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T300nm	**min. 95%**
Residue after evaporation	**max. 0.0005%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 054064

Ethyl acetate

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0001%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	Water (KF)	**max. 0.05%w/w**
Color (APHA)	**max. 10**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F254nm (as Quinine)	**max. 1.5ppb**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
F365nm (as Quinine)	**max. 1ppb**	GC/NPD any Pesticide (as Parathion)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Oil index (any hydrocarbon C10-C40)	**max. 0.05mg/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	GC/ECD volatile impu. (as E. Dibromide)	**max. 5ng/ml**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	T260nm	**min. 75%**
PAH test (<2ppb by HPLC)	**Passes test**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 054060

Ethyl acetate

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.03%w/w**
Acidity (as Acetic acid)	**max. 0.005%**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Color (APHA)	**max. 10**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 99.9%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Residue after evaporation	**max. 0.0002%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 054025

Ethyl acetate

Pesti-S

Appearance	**Clear colorless liquid**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Acidity (as Acetic acid)	**max. 0.005%**	Residue after evaporation	**max. 0.0002%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Water (KF)	**max. 0.03%w/w**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 054076

Ethyl acetate

VLSI

Color (APHA)	**max. 10**	Ga (Gallium)	**max. 10ppb**
Assay (GC, on anhydrous basis)	**min. 99.5%**	K (Potassium)	**max. 50ppb**
Water (KF)	**max. 0.05%w/w**	Li (Lithium)	**max. 10ppb**
Acidity (as C2H5COOH)	**max. 0.01%**	Mg (Magnesium)	**max. 20ppb**
Density (20/4°C)	**0.85-0.95gr/ml**	Mn (Manganese)	**max. 10ppb**
Residue after evaporation	**max. 0.001%w/w**	Mo (Molybdenum)	**max. 10ppb**
Ag (Silver)	**max. 10ppb**	Na (Sodium)	**max. 100ppb**
Al (Aluminum)	**max. 50ppb**	Ni (Nickel)	**max. 10ppb**
As (Arsenic)	**max. 10ppb**	Pb (lead)	**max. 10ppb**
Au (Gold)	**max. 10ppb**	Sb (Antimony)	**max. 10ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 10ppb**
Ba (Barium)	**max. 10ppb**	Sr (Strontium)	**max. 10ppb**
Bi (Bismuth)	**max. 10ppb**	Ta (Tantalum)	**max. 10ppb**
Ca (Calcium)	**max. 50ppb**	Ti (Titanium)	**max. 10ppb**
Cd (Cadmium)	**max. 10ppb**	Tl (Thallium)	**max. 10ppb**
Co (Cobalt)	**max. 10ppb**	V (Vanadium)	**max. 10ppb**
Cr (Chromium)	**max. 10ppb**	Zn (Zinc)	**max. 50ppb**
Cu (Copper)	**max. 30ppb**	Particle count > 0.5µm	**max. 250P/ml**
Fe (Iron)	**max. 50ppb**		

Cat. No. 054010

Ethyl acetate

MOS

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 10ppb**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Fe (Iron)	**max. 30ppb**
Color (APHA)	**max. 10**	Li (Lithium)	**max. 30ppb**
Acidity (as Acetic acid)	**max. 0.01%**	Mg (Magnesium)	**max. 30ppb**
Residue after evaporation	**max. 0.0005%w/w**	Mn (Manganese)	**max. 20ppb**
Water (KF)	**max. 0.05%w/w**	Mo (Molybdenum)	**max. 30ppb**
Chloride (Cl)	**max. 2ppm**	Ni (Nickel)	**max. 20ppb**
Ag (Silver)	**max. 20ppb**	Pb (lead)	**max. 30ppb**
Al (Aluminum)	**max. 20ppb**	Sb (Antimony)	**max. 30ppb**
As (Arsenic)	**max. 20ppb**	Si (Silicon)	**max. 50ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 30ppb**
Ba (Barium)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Be (Beryllium)	**max. 20ppb**	V (Vanadium)	**max. 50ppb**
Cd (Cadmium)	**max. 20ppb**	Zn (Zinc)	**max. 50ppb**
Co (Cobalt)	**max. 20ppb**	Particle count > 0.5µm	**max. 100P/ml**
Cr (Chromium)	**max. 20ppb**		

Cat. No. 054005

Ethyl acetate

AR

Appearance	**Clear colorless liquid**	Ethanol	**max. 0.1%**
Acidity (as Acetic acid)	**max. 0.005%**	Methanol	**max. 0.1%**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.001%w/w**
Subs. darkened by Sulfuric Acid	**Passes ACS test**	Water (KF)	**max. 0.05%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**		

Cat. No 054051

Ethyl acetate

AR-S glass distilled

Acidity (as Acetic acid)	**max. 0.005%**	Cd (Cadmium)	**max. 0.05ppm**
Color (APHA)	**max. 10**	Co (Cobalt)	**max. 0.02ppm**
Subs. darkened by Sulfuric Acid	**Passes ACS test**	Cr (Chromium)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Cu (Copper)	**max. 0.02ppm**
Ethanol	**max. 0.1%**	Fe (Iron)	**max. 0.1ppm**
Methanol	**max. 0.1%**	Mg (Magnesium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0005%w/w**	Mn (Manganese)	**max. 0.02ppm**
Water (KF)	**max. 0.03%w/w**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**		

Cat. No. 054003

Ethyl acetate

Meets EP/BP spec.

Appearance	**Clear, colourless, volatile liquid**	Cu (Copper)	**max. 0.1ppm**
		Fe (Iron)	**max. 0.1ppm**
Identification B	**Passes EP/BP test**	Ir (Iridium)	**max. 0.1ppm**
Appearance of solution	**Clear, colourless solution**	Mn (Manganese)	**max. 0.1ppm**
Color (APHA)	**max. 15**	Mo (Molybdenum)	**max. 0.1ppm**
Acidity	**Passes EP/BP test**	Ni (Nickel)	**max. 0.1ppm**
Water (KF)	**max. 0.1%w/w**	Os (Osmium)	**max. 0.1ppm**
Subs. darkened by Sulfuric Acid	**Passes EP/BP test**	Pd (Palladium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Pt (Platinum)	**max. 0.1ppm**
Related substance	**max. 0.2%**	Rh (Rhodium)	**max. 0.1ppm**
Refractive index (20/D)	**1.370-1.373**	Ru (Ruthenium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.003%w/w**	V (Vanadium)	**max. 0.1ppm**
Relative density (20°C)	**0.898-0.902**	Zn (Zinc)	**max. 0.1ppm**
Cr (Chromium)	**max. 0.1ppm**		

Cat. No. 054036

Ethyl acetate

Meets USP spec.

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Fe (Iron)	**max. 0.1ppm**
Identification	**Passes USP test**	Ir (Iridium)	**max. 0.1ppm**
Assay	**99.0-100.5%**	Mn (Manganese)	**max. 0.1ppm**
Purity (GC, on anhydrous basis)	**min. 99.8%**	Mo (Molybdenum)	**max. 0.1ppm**
Acidity	**Passes USP test**	Ni (Nickel)	**max. 0.1ppm**
Carbonisable substances	**Passes USP test**	Os (Osmium)	**max. 0.1ppm**
Limit of methyl compounds	**Passes USP test**	Pd (Palladium)	**max. 0.1ppm**
Specific gravity	**0.894-0.898**	Pt (Platinum)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Rh (Rhodium)	**max. 0.1ppm**
Organic volatile impurities	**Meets the requirements**	Ru (Ruthenium)	**max. 0.1ppm**
Water (KF)	**max. 0.03%w/w**	V (Vanadium)	**max. 0.1ppm**
Cr (Chromium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 054059

Ethyl acetate

Supra dry

Appearance	**Clear colorless liquid**	Ethanol	**max. 0.1%**
Acidity (as Acetic acid)	**max. 0.005%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**		

Cat. No. 054047

Ethyl acetate

Extra dry

Appearance	**Clear colorless liquid**	Ethanol	**max. 0.1%**
Acidity (as Acetic acid)	**max. 0.005%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.01%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**		

Cat. No. 054053

Ethyl acetate

Extra dry / M. sieves

Appearance	**Clear liquid**	Water (KF)	**max. 0.005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.005%**		

Cat. No. 054033

Ethyl acetate

Peptide synthesis

Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 0.1ppm**
Acidity (as Acetic acid)	**max. 0.003%**	Mg (Magnesium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Pb (Lead)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0003%w/w**	Zn (Zinc)	**max. 0.1ppm**
Water (KF)	**max. 0.02%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 054002

Ethyl acetate

CP

Color (APHA)	**max. 15**
Assay (GC, on anhydrous basis)	**min. 99.5%**
Residue after evaporation	**max. 0.001%w/w**
Water (KF)	**max. 0.1%w/w**

Ethylenediamine

CAS [107-15-3]; EC 203-468-6; $C_2H_8N_2$; M 60.1

Danger H:226-302-312-314-317-334; P:210-303+361+353-305+351+338-310

Cat. No. 053033

Ethylenediamine

Peptide synthesis

Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 99.5%**
Water (KF)	**max. 0.5%w/w**
Identity (IR)	**Conforms to standard**

Ethylene glycol

CAS [107-21-1]; EC 203-473-3; $C_2H_6O_2$; M 62.06

D 1.113; m.p. -13 °C; b.p. 196-198 °C;

Warning; H:302; P:264-270-301+312-330

Specification continues on the next page

Cat. No. 051810

Ethylene glycol

MOS

Color (APHA)	**max. 10**	K (Potassium)	**max. 300ppb**
Assay (GC, on anhydrous basis)	**min. 99.0%**	Li (Lithium)	**max. 100ppb**
Water (KF)	**max. 0.15%w/w**	Mg (Magnesium)	**max. 100ppb**
Acidity (as Acetic acid)	**max. 0.002%**	Mn (Manganese)	**max. 100ppb**
Chloride (Cl)	**max. 1ppm**	Na (Sodium)	**max. 800ppb**
Al (Aluminum)	**max. 100ppb**	Ni (Nickel)	**max. 100ppb**
As (Arsenic)	**max. 100ppb**	Pb (lead)	**max. 200ppb**
Au (Gold)	**max. 50ppb**	Sb (Antimony)	**max. 100ppb**
B (Boron)	**max. 50ppb**	Sn (Tin)	**max. 100ppb**
Ba (Barium)	**max. 100ppb**	Ti (Titanium)	**max. 100ppb**
Ca (Calcium)	**max. 300ppb**	Zn (Zinc)	**max. 400ppb**
Cr (Chromium)	**max. 50ppb**	Particle count > 0.5µm	**max. 100P/ml**
Cu (Copper)	**max. 50ppb**	Particle count > 1µm	**max. 10P/ml**
Fe (Iron)	**max. 200ppb**		

Filtered through 0.4µm.

Cat. No. 051805

Ethylene glycol

AR

Appearance	**Clear colorless viscous liquid**	Assay (GC, on anhydrous basis)	**min. 99.5%**
		Residue after evaporation	**max. 0.002%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Reducing substances (as O)	**max. 0.0003%**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.1%w/w**
Aldehydes	**max. 0.002%**		

Cat. No. 051836

Ethylene glycol

Meets USP spec.

Appearance	**Clear colorless viscous liquid**	Chloride (Cl)	**max. 0.0005%**
		Water (KF)	**max. 0.2%w/w**
Specific gravity (at 25°C)	**1.10-1.14**	Diethylene glycol	**max. 0.05%w/w**
Boiling range	**Complies with 194-200°C**	2-Methyldioxolane	**max. 0.05%**
Residue after ignition	**max. 0.005%**		
Acidity (as Acetic acid)	**max. 0.01%**		

Cat. No. 051802

Ethylene glycol

CP

Appearance	**Clear colorless viscous liquid**
Assay (GC, on anhydrous basis)	**min. 99%**
Water (KF)	**max. 0.5%w/w**

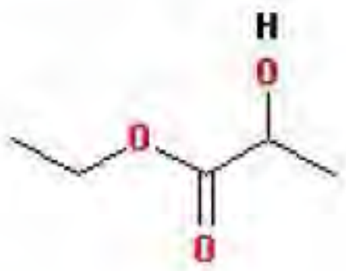
(S)-(-)-Ethyl lactate

Synonym: Ethyl 2-hydroxypropionate

CAS [687-47-8]; EC 211-694-1; $C_5H_{10}O_3$; M 118.13

D 1.034; m.p. -26 °C; b.p. 154 °C; UN 1192,3,III,F1

Danger H:226-318-335; P:210-303+361+353-305+351+338-310



Cat. No. 051102

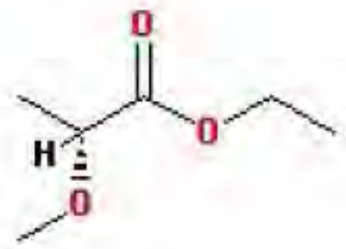
(S)-(-)-Ethyl lactate

CP

Assay (GC, on anhydrous basis)	**min. 97%**
Water (KF)	**max. 0.5%w/w**

Ethyl-(R)-(+)-2-Methoxypropionate

CAS [40105-20-2]; $C_6H_{12}O_3$; M 132.16;



Cat. No. 053880

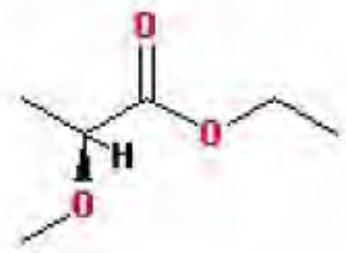
Ethyl-(R)-(+)-2-Methoxypropionate

For synthesis

Appearance	**Clear liquid**
Identity (IR)	**Conforms to structure**
Refractive index (20/D)	**1.3970-1.3990**
S.Rotation 20/D (neat)	**86.0-92.0°**

Ethyl-(S)-(-)-2-Methoxypropionate

CAS [41918-08-5]; $C_6H_{12}O_3$; M 132.15;



Cat. No. 053980

Ethyl-(S)-(-)-2-Methoxypropionate

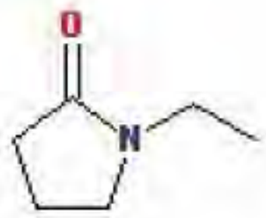
For synthesis

Appearance	**Clear liquid**
Identity (IR)	**Conforms to structure**
Refractive index (20/D)	**1.3970-1.3990**
S.Rotation 20/D (neat)	**-92.0--86.0°**

N-Ethyl-2-Pyrrolidone

Synonym: 1-Ethyl-2-pyrrolidone, NEP

CAS [2687-91-4]; EC 220-250-6; $C_6H_{11}NO$; M 113.16



Warning; H:302-319; P:264-280-301+312-305+351+338-337+313

Cat. No. 135733

N-Ethyl-2-Pyrrolidone

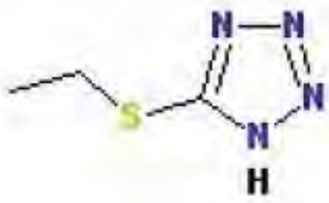
Peptide synthesis

Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 0.1ppm**
Color (APHA)	**max. 15**	Mg (Magnesium)	**max. 0.1ppm**
Free Amines (Kaiser)	**max. 0.001%**	Pb (Lead)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Zn (Zinc)	**max. 0.1ppm**
Water (KF)	**max. 0.03%w/w**		

5-(Ethylthio)-1H-Tetrazole

Synonym: ETT

CAS [89797-68-2]; $C_3H_6N_4S$; M 130.17;



Warning; H:315-319-335; EUH:044; P:261-280-305+351+338-321

Cat. No. 205424

5-(Ethylthio)-1H-Tetrazole

DNA synthesis

Appearance	**White to off white solid**	Assay (T)	**99.5-100.5%w/w**
Solubility (0.25M in ACN)	**Clear colorless solution**	Purity ETT (HPLC)	**min. 99.8%**
Water (KF)	**max. 0.1%w/w**		

Ficoll® 400

Synonym: *Polysucrose 400*

CAS [26873-85-8]; M ~400,000;

Cat. No. 060923

Ficoll® 400

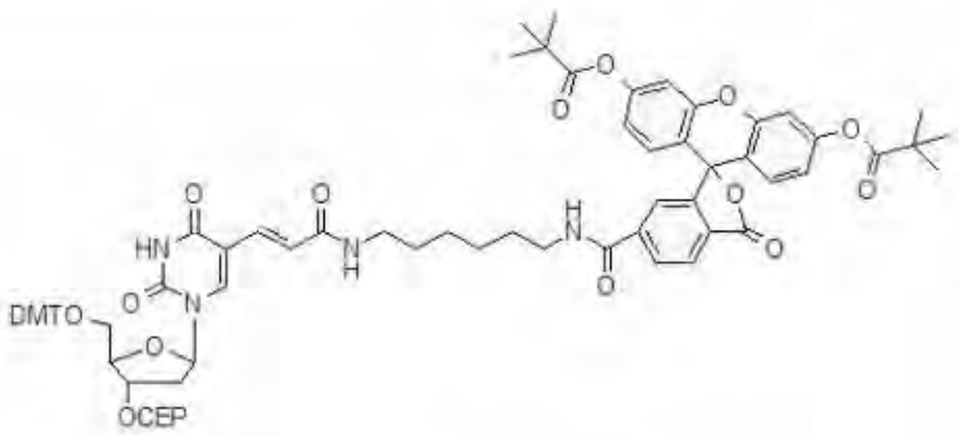
Molecular biology

Application: Commonly used as a component of Denhardt's Reagent and in gel-loading buffers for DNA gels.

Appearance	**Almost white powder**	DNase activity	**Not detected**
Solubility (50% W/V in Water)	**Complete**	RNase activity	**Not detected**
Loss on drying (105°C)	**max. 5%**	Protease activity	**Not detected**
S.Rotation 20/D (C=6 in Water)	**53-59°**		

Fluorescein dT

$C_{79}H_{89}N_6O_{17}P$; M 1425.59;



Warning; H:302-312-319-332; P:261-280-301+312-305+351+338-322

Cat. No. 182624

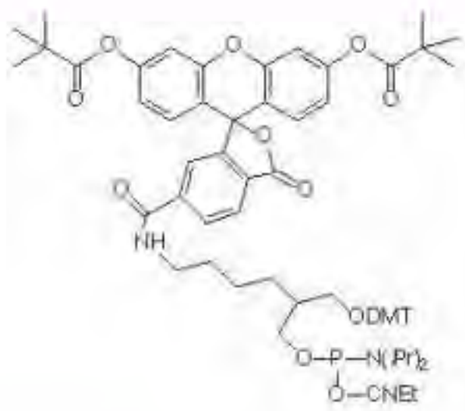
Fluorescein dT

DNA synthesis

Appearance	**White to pale yellow solid**	NMR P^{31} spectrum	**Conforms to structure**
Identity (HPLC)	**Conforms**	Solubility (0.1M in ACN)	**Complete, clear**
Assay (HPLC)	**min. 90%**		

6-Fluorescein phosphoramidite

$C_{68}H_{78}N_3O_{13}P$; M 1176.35;



Cat. No. 173824

6-Fluorescein phosphoramidite

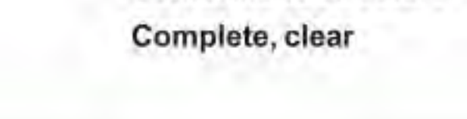
DNA synthesis

Assay (HPLC)	**min. 95%**
Solubility (0.1M in ACN)	**Complete, clear**

5'-Fluorescein phosphoramidite (6-FAM)

Synonym: *6-FAM*

CAS [204697-37-0]; $C_{46}H_{58}N_3O_{10}P$; M 843.95;



Warning; H:302-312-319-332; P:261-280-301+312-305+351+338-322

Cat. No. 173924

5'-Fluorescein phosphoramidite (6-FAM)

DNA synthesis

Appearance	**White to off-white solid**
Assay (HPLC)	**min. 95%**
Solubility (0.1M in ACN)	**Complete, clear**

Flush Solution 1 for LC-MS

Composition: *2-Propanol / Water 50:50*

D 0.916; UN 1219,3,II,F1;

Danger H:225-319-336; P:210-241-303+361+353-305+351+338-405

Cat. No. 180278

Flush Solution 1 for LC-MS

LC-MS

Application: General purpose flush solution where high-pH mobile phase is not advisable.

Appearance	**Clear colorless solution**	Cd (Cadmium)	**max. 0.05ppm**
Composition	**Complies**	Co (Cobalt)	**max. 0.02ppm**
LC-MS suitability test	**Fulfils the requirements**	Cr (Chromium)	**max. 0.02ppm**
Residue after evaporation	**max. 0.0005%w/w**	Cu (Copper)	**max. 0.02ppm**
T215nm	**min. 85%**	Fe (Iron)	**max. 0.05ppm**
T230nm	**min. 90%**	K (Potassium)	**max. 0.1ppm**
T254nm	**min. 99%**	Mg (Magnesium)	**max. 0.05ppm**
Ag (Silver)	**max. 0.05ppm**	Mn (Manganese)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.1ppm**	Ni (Nickel)	**max. 0.02ppm**
Ba (Barium)	**max. 0.05ppm**	Pb (Lead)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.05ppm**
		Zn (Zinc)	**max. 0.05ppm**

Filtered through 0.2µm, filled under inert gas.

Flush Solution 2 for LC-MS

Composition: *Acetonitrile / Methanol / 2-Propanol / Water / Formic acid 25:25:25:24.9:0.1*

Cat. No. 180578

Flush Solution 2 for LC-MS

LC-MS

Application: General purpose flush solution for high background spectra. Flush afterwards with Acetonitrile / Water 10:90.

Appearance	**Clear colorless solution**	Cr (Chromium)	**max. 0.02ppm**
Composition	**Complies**	Cu (Copper)	**max. 0.02ppm**
LC-MS suitability test	**Fulfils the requirements**	Fe (Iron)	**max. 0.05ppm**
Residue after evaporation	**max. 0.0005%w/w**	K (Potassium)	**max. 0.1ppm**
Ag (Silver)	**max. 0.05ppm**	Mg (Magnesium)	**max. 0.05ppm**
Al (Aluminum)	**max. 0.1ppm**	Mn (Manganese)	**max. 0.02ppm**
Ba (Barium)	**max. 0.05ppm**	Ni (Nickel)	**max. 0.02ppm**
Ca (Calcium)	**max. 0.1ppm**	Pb (Lead)	**max. 0.1ppm**
Cd (Cadmium)	**max. 0.05ppm**	Sn (Tin)	**max. 0.05ppm**
Co (Cobalt)	**max. 0.02ppm**	Zn (Zinc)	**max. 0.05ppm**

Filtered through 0.2µm, filled under inert gas.

Flush Solution 3 for LC-MS

Composition: *Acetonitrile / Water / ammonium hydroxide 50:49:1*

Cat. No. 180678

Flush Solution 3 for LC-MS

LC-MS

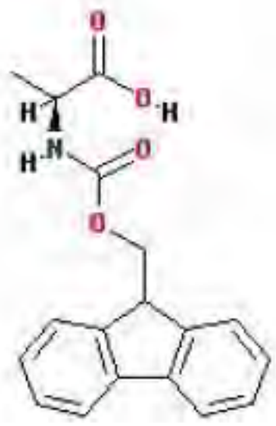
Application: Use to remove PEG and amide contamination. Flush afterwards with Acetonitrile / Water 10:90.

Appearance	**Clear colorless solution**	Cr (Chromium)	**max. 0.02ppm**
Composition	**Complies**	Cu (Copper)	**max. 0.02ppm**
LC-MS suitability test	**Fulfils the requirements**	Fe (Iron)	**max. 0.05ppm**
Residue after evaporation	**max. 0.0005%w/w**	K (Potassium)	**max. 0.1ppm**
Ag (Silver)	**max. 0.05ppm**	Mg (Magnesium)	**max. 0.05ppm**
Al (Aluminum)	**max. 0.1ppm**	Mn (Manganese)	**max. 0.02ppm**
Ba (Barium)	**max. 0.05ppm**	Ni (Nickel)	**max. 0.02ppm**
Ca (Calcium)	**max. 0.1ppm**	Pb (Lead)	**max. 0.1ppm**
Cd (Cadmium)	**max. 0.05ppm**	Sn (Tin)	**max. 0.05ppm**
Co (Cobalt)	**max. 0.02ppm**	Zn (Zinc)	**max. 0.05ppm**

Filtered through 0.2µm, filled under inert gas.

Fmoc-Ala-OH

CAS [35661-39-3]; EC 252-660-6; $C_{18}H_{17}NO_4$; M 311.33



Cat. No. 063033

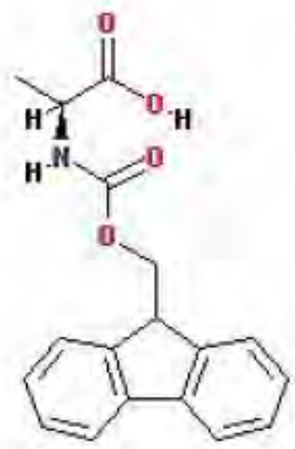
Fmoc-Ala-OH

Peptide synthesis

Appearance	**White to off white powder**
Purity (HPLC)	**min. 98%**
S.Rotation 20/D (C=1 in DMF)	**-20--18°**
Water (KF)	**max. 1%w/w**

Fmoc-Ala-OH*H_2O

CAS [35661-39-3]; EC 252-660-6; $C_{18}H_{17}NO_4$; M 311.33



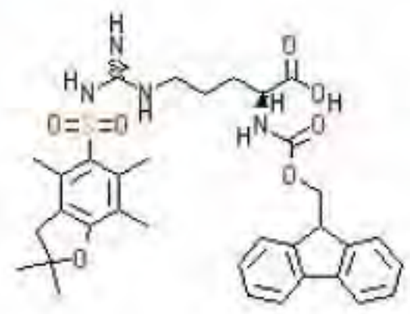
Cat. No. 070433

Fmoc-Ala-OH*H_2O

Peptide synthesis

Appearance	**White to off white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms with structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
S.Rotation 20/D (C=1 in DMF)	**-20.0--17.0°**	Water (KF)	**5-7%w/w**
Purity (TLC)	**min. 98%**		

Fmoc-Arg(Pbf)-OH



CAS [154445-77-9]; $C_{34}H_{40}N_4O_7S$; M 648.78;

Warning; H:315-319-335; P:261-280-305+351+338-321

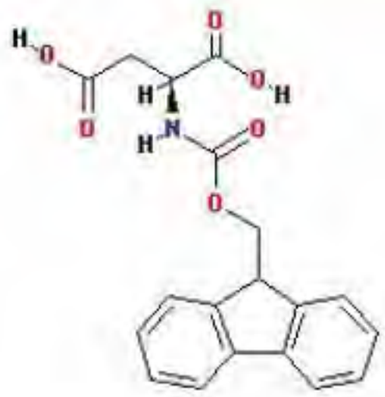
Cat. No. 060133

Fmoc-Arg(Pbf)-OH

Peptide synthesis

Appearance	**White to off-white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms with structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
		Water (KF)	**max. 1%w/w**
S.Rotation 20/D (C=1 in DMF)	**-6.0--4.0°**		
Purity (TLC)	**min. 98%**		

Fmoc-Asp-OH



CAS [119062-05-4]; $C_{19}H_{17}NO_6$; M 355.35;

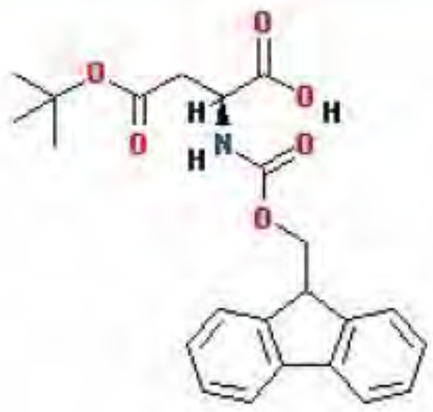
Cat. No. 064133

Fmoc-Asp-OH

Peptide synthesis

Appearance	**White to off white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms with structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
		Water (KF)	**max. 1%w/w**
S.Rotation 20/D (C=1 in DMF)	**-27.0--23.0°**		
Purity (TLC)	**min. 98%**		

Fmoc-Asp(OtBu)-OH



CAS [71989-14-5]; EC 276-251-7; $C_{23}H_{25}NO_6$; M 411.46

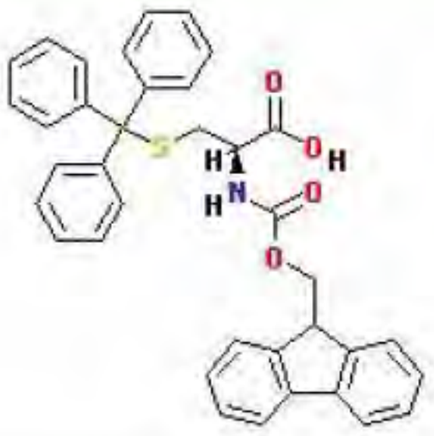
Cat. No. 060333

Fmoc-Asp(OtBu)-OH

Peptide synthesis

Appearance	**White to off-white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms with structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
		Water (KF)	**max. 1%w/w**
S.Rotation 20/D (C=1 in DMF)	**-25.5--22.5°**		
Purity (TLC)	**min. 98%**		

Fmoc-Cys(Trt)-OH



CAS [103213-32-7]; $C_{37}H_{31}NO_4S$; M 585.73;

Specification continues on the next page

Cat. No. 060433

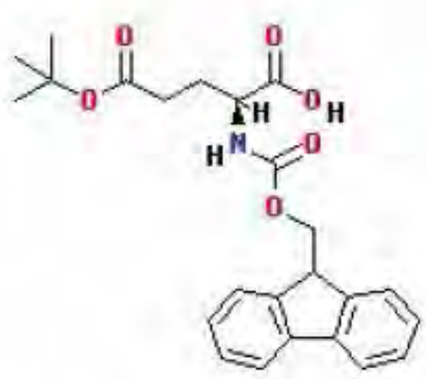
Fmoc-Cys(Trt)-OH

Peptide synthesis

Appearance	**White to off-white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms with structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
		Water (KF)	**max. 1%w/w**
S.Rotation 20/D (C=1 in DMF)	**17.0-23.0°**		
Purity (TLC)	**min. 98%**		

Fmoc-Glu(OtBu)-OH

CAS [71989-18-9]; EC 276-253-8; $C_{24}H_{27}NO_6$; M 425.48



Cat. No. 061133

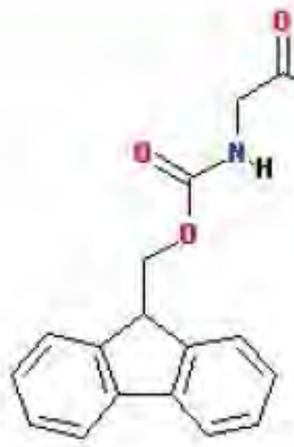
Fmoc-Glu(OtBu)-OH

Peptide synthesis

Appearance	**White to off-white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms with structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
		Water (KF)	**max. 5%w/w**
S.Rotation 20/D (C=1 in DMF)	**-19.0--16.0°**		
Purity (TLC)	**min. 98%**		

Fmoc-Gly-OH

CAS [29022-11-5]; EC 249-373-3; $C_{17}H_{15}NO_4$; M 297.32



Cat. No. 063133

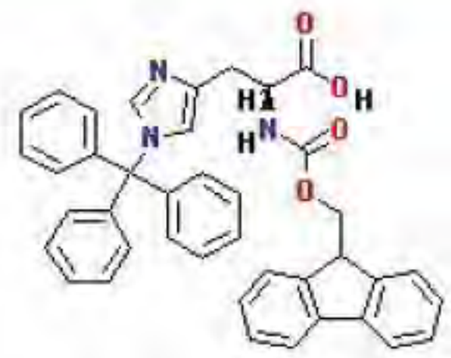
Fmoc-Gly-OH

Peptide synthesis

Appearance	**White to off white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms to Structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, Clear**	Water (KF)	**max. 1%w/w**
Purity (TLC)	**min. 98%**		

Fmoc-His(Trt)-OH

CAS [109425-51-6]; $C_{40}H_{33}N_3O_4$; M 619.72g;



Cat. No. 061233

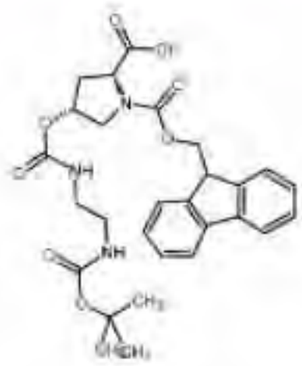
Fmoc-His(Trt)-OH

Peptide synthesis

Appearance	**White to off-white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms with structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
		Water (KF)	**max. 1%w/w**
S.Rotation 20/D (C=1 in $CHCl_3$)	**82.5-88.5°**		
Purity (TLC)	**min. 98%**		

Fmoc-Hyp(Boc-aminoethylcarbamoyl)-OH

CAS [187223-15-0]; $C_{28}H_{33}N_3O_8$; M 539.59;



Cat. No. 309033

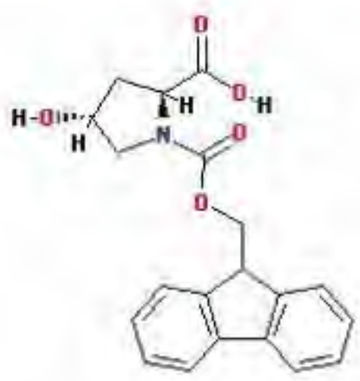
Fmoc-Hyp(Boc-aminoethylcarbamoyl)-OH

Peptide synthesis

Appearance	**White to off-white powder**	Enantiomeric purity (2R,4S-Isomer)	**max. 0.5%**
Identity (IR)	**Conforms with structure**	Diastereomer - (2S, 4S)	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	Free amino acid	**max. 0.5%**
Purity (TLC)	**min. 98%**	Water (KF)	**max. 0.5%w/w**
Purity (HPLC)	**min. 98%**		

Fmoc-Hyp-OH

CAS [88050-17-3]; $C_{20}H_{19}NO_5$; M 353.37;



Cat. No. 061733

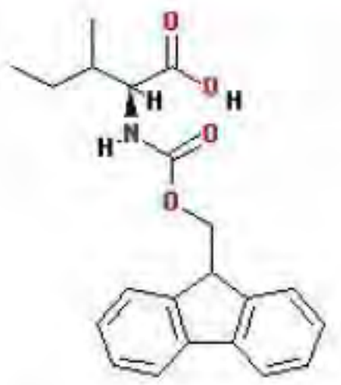
Fmoc-Hyp-OH

Peptide synthesis

Appearance	**White to off-white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms with structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	Water (KF)	**max. 1%w/w**
		Residual solvents	**max. 0.5%**
S.Rotation 20/D (C=1 in DMF)	**-46.0--42.0°**		
Purity (TLC)	**min. 98%**		

Fmoc-Ile-OH

CAS [71989-23-6]; EC 276-255-9; $C_{21}H_{23}NO_4$; M 353.41



Cat. No. 063233

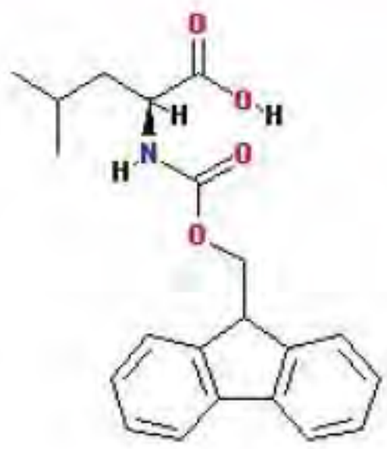
Fmoc-Ile-OH

Peptide synthesis

Appearance	**White to off white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms to structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
		Water (KF)	**max. 1%w/w**
S.Rotation 20/D (C=1 in DMF)	**-13.0--10.0°**		
Purity (TLC)	**min. 98%**		

Fmoc-Leu-OH

CAS [35661-60-0]; EC 252-662-7; $C_{21}H_{23}NO_4$; M 353.42



Specification continues on the next page

Cat. No. 063333

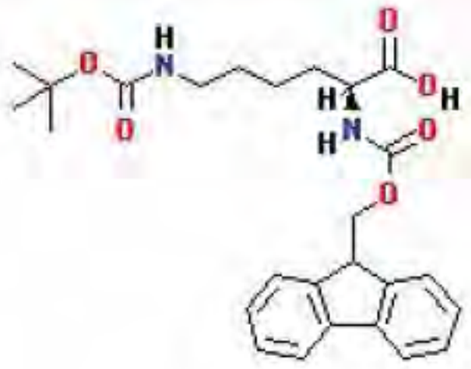
Fmoc-Leu-OH

Peptide synthesis

Appearance	**White to off white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms to structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
S.Rotation 20/D (C=1 in DMF)	**-26.0--23.0°**	Water (KF)	**max. 1%w/w**
Purity (TLC)	**min. 98%**		

Fmoc-Lys(Boc)-OH

CAS [71989-26-9]; EC 276-256-4; $C_{26}H_{32}N_2O_6$; M 468.55g



Cat. No. 061333

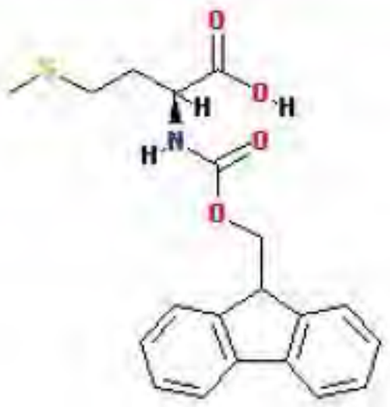
Fmoc-Lys(Boc)-OH

Peptide synthesis

Appearance	**White to off-white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms with structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
S.Rotation 20/D (C=1 in DMF)	**-13.0--10.0°**	Water (KF)	**max. 1%w/w**
Purity (TLC)	**min. 98%**		

Fmoc-Met-OH

CAS [71989-28-1]; EC 276-258-5; $C_{20}H_{21}NO_4S$; M 371.45



Cat. No. 063433

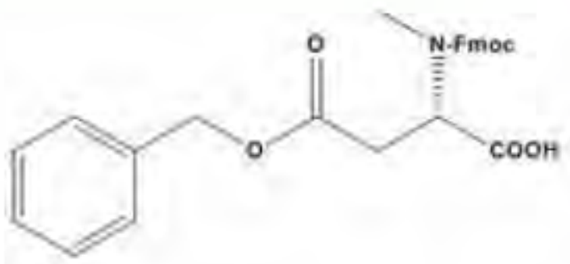
Fmoc-Met-OH

Peptide synthesis

Appearance	**White to off white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms to structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
S.Rotation 20/D (C=1 in DMF)	**-31.0--29.0°**	Water (KF)	**max. 1%w/w**
Purity (TLC)	**min. 98%**		

Fmoc-N-Me-Asp(OBzl)-OH

CAS [131451-30-4]; $C_{27}H_{25}NO_6$; M 459.5;



Cat. No. 320833

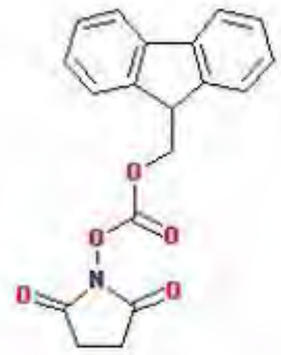
Fmoc-N-Me-Asp(OBzl)-OH

Peptide synthesis

Appearance	**White to off-white solid**	Purity (HPLC)	**min. 98%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	Free amino acid	**max. 0.5%**
Purity (TLC)	**min. 98%**	Residual solvents	**max. 2%**

Fmoc-ONSu

CAS [82911-69-1]; EC 433-520-5; $C_{19}H_{15}NO_5$; M 337.33



Warning; H:302-317-411; P:261-280-301+312-321-363

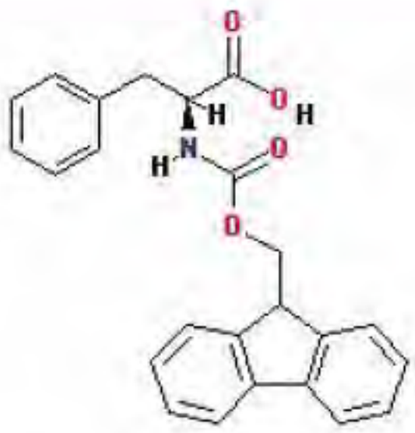
Cat. No. 060833

Fmoc-ONSu

Peptide synthesis

Appearance	**White to off-white solid**
Assay (HPLC)	**min. 99%**
Loss on drying (105°C)	**max. 0.5%**

Fmoc-Phe-OH



CAS [35661-40-6]; EC 252-661-1; $C_{24}H_{21}NO_4$; M 387.44

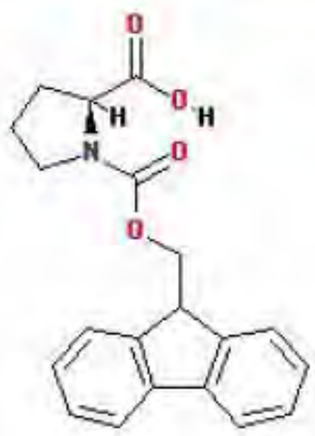
Cat. No. 063533

Fmoc-Phe-OH

Peptide synthesis

Appearance	**White to off white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms to structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, Clear**	D-enantiomer	**max. 0.5%**
		Water (KF)	**max. 1%w/w**
S.Rotation 20/D (C=1 in DMF)	**-40.5--35.5°**		
Purity (TLC)	**min. 98%**		

Fmoc-Pro-OH



CAS [71989-31-6]; EC 276-259-0; $C_{20}H_{19}NO_4$; M 337.38

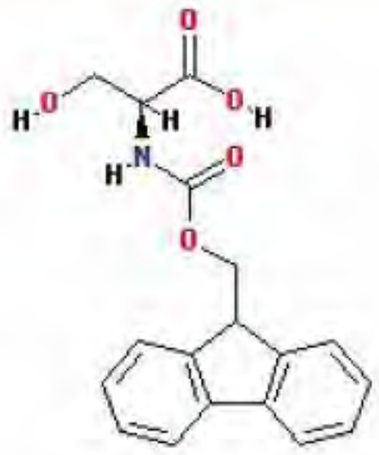
Cat. No. 063633

Fmoc-Pro-OH

Peptide synthesis

Appearance	**White to off white solid**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms to structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
		Water (KF)	**max. 6%w/w**
S.Rotation 20/D (C=1 in DMF)	**-34.0--30.0°**		
Purity (TLC)	**min. 98%**		

Fmoc-Ser-OH



CAS [73724-45-5]; $C_{18}H_{17}NO_5$; M 327.33;

Specification continues on the next page

Cat. No. 062533

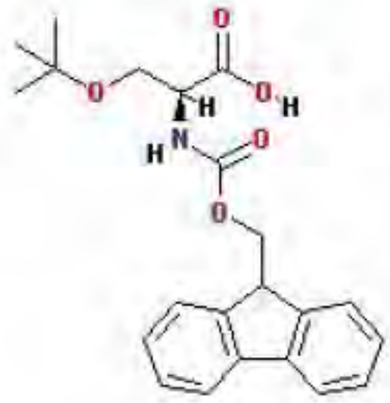
Fmoc-Ser-OH

Peptide synthesis

Appearance	**White to off-white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms with structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
		Water (KF)	**max. 6%w/w**
S.Rotation 20/D (C=1 in DMF)	**-13.5--11.5°**		
Purity (TLC)	**min. 98%**		

Fmoc-Ser(tBu)-OH

CAS [71989-33-8]; EC 276-260-6; $C_{22}H_{25}NO_5$; M 383.44



Cat. No. 061433

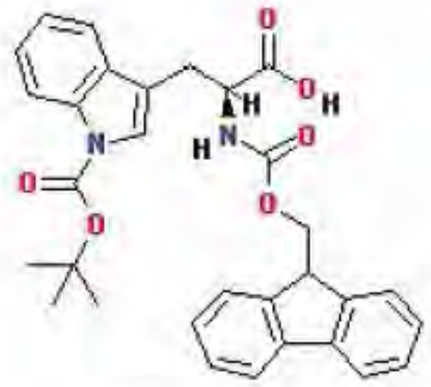
Fmoc-Ser(tBu)-OH

Peptide synthesis

Appearance	**White to off-white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms to structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
		Water (KF)	**max. 1%w/w**
S.Rotation 20/D (C=1 in EtOAc)	**23.0-26.0°**		
Purity (TLC)	**min. 98%**		

Fmoc-Trp(Boc)-OH

CAS [143824-78-6]; $C_{31}H_{30}N_2O_6$; M 526.59;



Cat. No. 062233

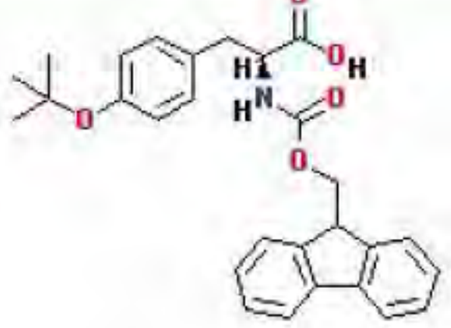
Fmoc-Trp(Boc)-OH

Peptide synthesis

Appearance	**White to off-white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms with structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
		Water (KF)	**max. 1%w/w**
S.Rotation 20/D (C=1 in DMF)	**-21.5--18.5°**		
Purity (TLC)	**min. 98%**		

Fmoc-Tyr(tBu)-OH

CAS [71989-38-3]; EC 276-262-7; $C_{28}H_{29}NO_5$; M 459.54



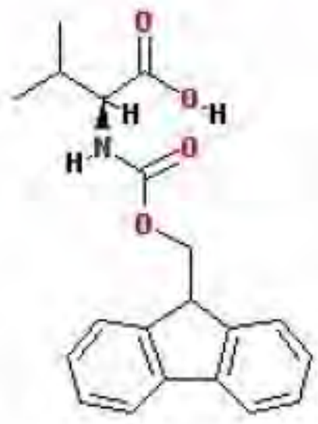
Cat. No. 062333

Fmoc-Tyr(tBu)-OH

Peptide synthesis

Appearance	**White to off-white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms to structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
		Water (KF)	**max. 1%w/w**
S.Rotation 20/D (C=1 in DMF)	**-33.0--27.0°**		
Purity (TLC)	**min. 98%**		

Fmoc-Val-OH



CAS [68858-20-8]; EC 272-515-0; $C_{20}H_{21}NO_4$; M 339.38

Cat. No. 063733

Fmoc-Val-OH

Peptide synthesis

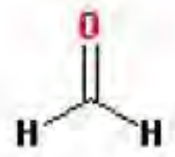
Appearance	**White to off white powder**	Purity (HPLC)	**min. 98%**
Identity (IR)	**Conforms to structure**	Free amino acid	**max. 0.5%**
Solubility (5mmole/10ml DMF, >72h)	**Complete, clear**	D-enantiomer	**max. 0.5%**
S.Rotation 20/D (C=1 in DMF)	**-18.5--15.5°**	Water (KF)	**max. 1%w/w**
Purity (TLC)	**min. 98%**		

Formaldehyde 35%

Synonym: Formaline solution, Methanal solution, Methylaldehyde solution

CAS [50-00-0]; EC 200-001-8; CH_2O; M 30.02

Danger H:302-311-314-317-331-351-371; P:260-303+361+353-305+351+338-310-405-501



Cat. No. 067505

Formaldehyde 35%

AR

Appearance	**Clear to slight turbid liquid**	Chloride (Cl)	**max. 0.0005%**
Acidity (as HCOOH)	**max. 0.03%**	Heavy metals (as Pb)	**max. 0.0005%**
Assay %w/w	**33-38%w/w**	Iron (Fe)	**max. 0.0005%**
Stabilizer (MeOH)	**8-12%w/w**	Sulfate (SO_4)	**max. 0.002%**

May form white precipitate when cold.

Cat. No. 067503

Formaldehyde 35%

Meets EP/BP spec.

Appearance	**Clear colorless liquid**	Appearance of solution	**Colorless solution 20%**
Identification A	**Passes EP/BP test**	Acidity	**Passes EP/BP test**
Identification B	**Passes EP/BP test**	Assay %w/w	**34.5-38.0%w/w**
Identification C	**Passes EP/BP test**	Stabilizer (MeOH)	**6.6-11.0%w/w**
Identification D	**Passes EP/BP test**	Residue after ignition	**max. 0.1%**

May form white precipitate when cold.

Cat. No. 067523

Formaldehyde 35%

Molecular biology

Appearance	**Clear to slight turbid liquid**	Stabilizer (MeOH)	**8-12%w/w**
Color (APHA)	**max. 15**	Acidity (as HCOOH)	**max. 0.03%**
Assay %w/w	**34-38%w/w**		

May form white precipitate when cold.

Cat. No. 067502

Formaldehyde 35%

CP

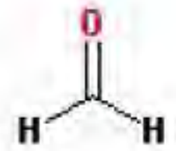
Appearance	**Slightly turbid to clear liquid**
Assay %w/w	**30-38%w/w**
Stabilizer (MeOH)	**8-12%w/w**

May form white precipitate when cold.

Formaldehyde 4% buffered pH 7

Synonym: *Formaline 1/10, Methanal solution, Methylaldehyde solution.*

CAS [50-00-0]; EC 200-001-8; CH_2O; M 30.01



Warning; H:317-351; P:261-280-308+313-321-405-501

Cat. No. 064503

Formaldehyde 4% buffered pH 7

Meets EP/BP spec.

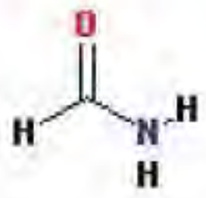
Appearance	**Clear colorless liquid**	Mn (Manganese)	**max. 0.5ppm**
Identification A	**Passes EP/BP test**	Mo (Molybdenum)	**max. 0.5ppm**
Identification B	**Passes EP/BP test**	Ni (Nickel)	**max. 0.1ppm**
Identification C	**Passes EP/BP test**	Os (Osmium)	**max. 0.1ppm**
Identification D	**Passes EP/BP test**	Pd (Palladium)	**max. 0.01ppm**
Assay %w/w	**4.0-5.0%w/w**	Pt (Platinum)	**max. 0.1ppm**
Stabilizer (MeOH)	**0.8-1.4%w/w**	Rh (Rhodium)	**max. 0.1ppm**
pH	**6.8-7.2**	Ru (Ruthenium)	**max. 0.5ppm**
Cr (Chromium)	**max. 0.1ppm**	V (Vanadium)	**max. 0.1ppm**
Cu (Copper)	**max. 0.1ppm**	Zn (Zinc)	**max. 10ppm**
Fe (Iron)	**max. 0.1ppm**	Residue after ignition	**max. 0.1%**
Ir (Iridium)	**max. 0.01ppm**		

Formamide

Synonym: *Formic amide*

CAS [75-12-7]; EC 200-842-0; CH_3NO; M 45.04

D 1.13; m.p. 2-3 °C; b.p. 210 °C;



Danger H:351-373-360D; P:201-202-260-281-308+313-314-405

Cat. No. 068005

Formamide

AR

Appearance	**Clear colorless liquid**	Copper (Cu)	**max. 0.0001%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Heavy metals (as Pb)	**max. 0.0001%**
Color (APHA)	**max. 10**	Iron (Fe)	**max. 0.0001%**
Acidity (as HCOOH)	**max. 0.02%**	Zinc (Zn)	**max. 0.0001%**
Water (KF)	**max. 0.05%w/w**		

Cat. No. 068023

Formamide

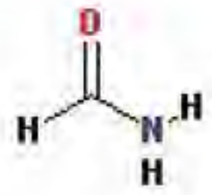
Molecular biology

Application: Commonly used in nucleic acid hybridization and sequencing, may require pretreatment with a mixed-bed resin (see also Formamide deionized).

Appearance	**Clear colorless liquid**	A260nm (0.5M)	**max. 0.05AU**
Solubility (50% in Water)	**Complete**	A280nm (0.5M)	**max. 0.02AU**
Conductivity (at bottling)	**max. 350µS/cm**	DNase activity	**Not detected**
Assay (GC, on anhydrous basis)	**min. 99%**	RNase activity	**Not detected**
Iron (Fe)	**max. 0.0001%**	Protease activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0001%**		

Formamide deionized

Synonym: *Formic amide*



CAS [75-12-7]; EC 200-842-0; CH_3NO; M 45.04

D 1.13; m.p. 2-3 °C; b.p. 210 °C;

Danger H:351-373-360D; P:260-281-308+313-314-405

Cat. No. 068123

Formamide deionized

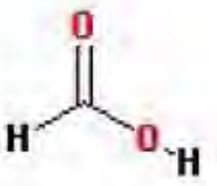
Molecular biology

Application: Pretreated with a mixed-bed resin and ready for use in nucleic acid hybridization and sequencing.

Appearance	**Clear colorless liquid**	A260nm (0.5M)	**max. 0.05AU**
Solubility (50% in Water)	**Complete**	A280nm (0.5M)	**max. 0.02AU**
Copper (Cu)	**max. 0.0001%**	DNase activity	**Not detected**
Conductivity (at bottling)	**max. 100µS/cm**	RNase activity	**Not detected**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Protease activity	**Not detected**
Iron (Fe)	**max. 0.0001%**		
Heavy metals (as Pb)	**max. 0.0001%**		
Zinc (Zn)	**max. 0.0001%**		

Formic acid 99%

Synonym: *Methanoic acid, Formylic acid*



CAS [64-18-6]; EC 200-579-1; CH_2O_2; M 46.02

D 1.220; m.p. -9 °C; b.p. 101 °C; UN 1779,8 + 3,II,CF1

Danger H:226-314; P:210-303+361+353-305+351+338-310-405-501

Cat. No. 069141

Formic acid 99%

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	T320nm	**min. 98%**
Color (APHA)	**max. 10**	F254nm (0.1%, as Quinine)	**max. 0.5ppb**
Assay (T, dry)	**min. 99.0%w/w**	F365nm (0.1%, as Quinine)	**max. 0.5ppb**
Water (KF)	**max. 1%w/w**	Al (Aluminum)	**max. 0.05ppm**
MS-ESI+ (0.1%, as Reserpine)	**max. 20ppb**	Ca (Calcium)	**max. 0.2ppm**
Grad. elution H.Peak at 254nm	**max. 0.002AU**	Fe (Iron)	**max. 0.2ppm**
Grad. elution drift at 254nm	**max. 0.010AU**	K (Potassium)	**max. 0.1ppm**
T260nm	**min. 15%**	Mg (Magnesium)	**max. 0.05ppm**
T270nm	**min. 83%**	Na (Sodium)	**max. 0.5ppm**
T280nm	**min. 90%**	Pb (Lead)	**max. 0.2ppm**
T300nm	**min. 97%**	Residue after evaporation	**max. 0.001%w/w**

Filtered through 0.1µm, filled under inert gas.

Cat. No. 069178

Formic acid 99%

LC-MS

Appearance	**Clear colorless liquid**	T320nm	**min. 98%**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.001%w/w**
Assay (T, dry)	**min. 99.0%w/w**	Al (Aluminum)	**max. 0.2ppm**
MS-ESI+ (0.1%, as Reserpine)	**max. 50ppb**	Ca (Calcium)	**max. 0.5ppm**
Water (KF)	**max. 1%w/w**	Fe (Iron)	**max. 0.5ppm**
Grad. elution H.Peak at 254nm	**max. 0.005AU**	K (Potassium)	**max. 0.5ppm**
Grad. elution drift at 254nm	**max. 0.020AU**	Na (Sodium)	**max. 0.5ppm**
T260nm	**min. 15%**	Pb (Lead)	**max. 0.2ppm**
T270nm	**min. 83%**		
T280nm	**min. 90%**		
T300nm	**min. 97%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 069106

Formic acid 99%

HPLC

Appearance	**Clear colorless liquid**	T275nm	**min. 85%**
Color (APHA)	**max. 10**	T285nm	**min. 90%**
Assay (T, dry)	**99.0-101.0%w/w**	T300nm	**min. 95%**
Residue after evaporation	**max. 0.001%w/w**		
Water (KF)	**max. 1%w/w**		
T265nm	**min. 20%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 069105

Formic acid 99%

AR

Appearance	**Clear colorless liquid**	Ammonium (NH4)	**max. 0.005%**
Color (APHA)	**max. 10**	Chloride (Cl)	**max. 0.001%**
Assay (T)	**min. 99%w/w**	Heavy metals (as Pb)	**max. 0.001%**
Residue after evaporation	**max. 0.003%w/w**	Iron (Fe)	**max. 0.001%**
Dilution test	**Passes ACS test**	Sulfate (SO_4)	**max. 0.003%**
Acetic acid	**max. 0.4%**	Sulfite (SO_3)	**Passes ACS test**

Formic acid 0.1% in Acetonitrile

D 0.78; UN 1993,3,II,F1;

Danger H:225-312-319-332; P:210-241-261-303+361+353-305+351+338

Cat. No. 019341

Formic acid 0.1% in Acetonitrile

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	T230nm	**min. 15%**
Assay (T)	**0.095-0.105%v/v**	T254nm	**min. 90%**
Water (KF)	**max. 0.02%w/w**	Al (Aluminum)	**max. 30ppb**
Residue after evaporation	**max. 0.0001%w/w**	Ca (Calcium)	**max. 100ppb**
MS-ESI+ (as Reserpine)	**max. 20ppb**	Fe (Iron)	**max. 50ppb**
Grad. elution H.Peak at 254nm	**max. 0.002AU**	K (Potassium)	**max. 100ppb**
Grad. elution drift at 254nm	**max. 0.030AU**	Mg (Magnesium)	**max. 30ppb**
F254nm (as Quinine)	**max. 0.5ppb**	Na (Sodium)	**max. 100ppb**
F365nm (as Quinine)	**max. 0.5ppb**		
T210nm	**min. 5%**		

Filtered through 0.1µm, filled under inert gas.

Cat. No. 019378

Formic acid 0.1% in Acetonitrile

LC-MS

Appearance	**Clear colorless liquid**	T254nm	**min. 88%**
Grad. elution H.Peak at 254nm	**max. 0.005AU**	Ca (Calcium)	**max. 0.05ppm**
Assay (T)	**0.095-0.105%v/v**	K (Potassium)	**max. 0.05ppm**
Purity of ACN	**min. 99.9%**	Mg (Magnesium)	**max. 0.05ppm**
Purity of formic acid	**min. 99.0%**	Na (Sodium)	**max. 0.05ppm**
MS-ESI+ (as Reserpine)	**max. 50ppb**	Fe (Iron)	**max. 0.02ppm**
T230nm	**min. 10%**	Pb (Lead)	**max. 0.02ppm**

Cat. No. 019306

Formic acid 0.1% in Acetonitrile

HPLC

Appearance	**Clear colorless liquid**	T245nm	**min. 65%**
Water (KF)	**max. 0.02%w/w**	T254nm	**min. 90%**
Assay (T)	**0.095-0.105%v/v**	T270nm	**min. 99%**
T235nm	**min. 25%**		

Formic acid 0.04% in Acetonitrile

D 0.78; UN 1993,3,II,F1;

Danger H:225-312-319-332; P:210-241-261-303+361+353-305+351+338

Cat. No. 068841

Formic acid 0.04% in Acetonitrile

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	Grad. elution H.Peak at 254nm	**max. 0.001AU**
Assay (T)	**0.035-0.045%v/v**	MS-ESI+ (0.1%, as Reserpine)	**max. 20ppb**
Water (KF)	**max. 0.02%w/w**	Al (Aluminum)	**max. 0.5ppm**
T225nm	**min. 40%**	Ca (Calcium)	**max. 0.5ppm**
T235nm	**min. 60%**	Fe (Iron)	**max. 0.2ppm**
T255nm	**min. 98%**	K (Potassium)	**max. 0.5ppm**
F254nm (as Quinine)	**max. 0.5ppb**	Mg (Magnesium)	**max. 0.2ppm**
F365nm (as Quinine)	**max. 0.5ppb**	Na (Sodium)	**max. 1ppm**

Filtered through 0.1µm, filled under inert gas.

Formic acid 0.1% in Water

D 1.0;

Cat. No. 232441

Formic acid 0.1% in Water

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	T230nm	**min. 45%**
Assay (T)	**0.095-0.105%v/v**	T254nm	**min. 99%**
Residue after evaporation	**max. 0.0001%w/w**	Al (Aluminum)	**max. 30ppb**
MS-ESI+ (as Reserpine)	**max. 20ppb**	Ca (Calcium)	**max. 100ppb**
Grad. elution H.Peak at 254nm	**max. 0.002AU**	Fe (Iron)	**max. 50ppb**
Grad. elution drift at 254nm	**max. 0.010AU**	K (Potassium)	**max. 100ppb**
F254nm (as Quinine)	**max. 0.5ppb**	Mg (Magnesium)	**max. 30ppb**
F365nm (as Quinine)	**max. 0.5ppb**	Na (Sodium)	**max. 100ppb**
T210nm	**min. 5%**		

Filtered through 0.1µm, filled under inert gas.

Cat. No. 232478

Formic acid 0.1% in Water

LC-MS

Appearance	**Clear colorless liquid**	Ca (Calcium)	**max. 0.05ppm**
Assay (T)	**0.095-0.105%v/v**	Fe (Iron)	**max. 0.02ppm**
MS-ESI+ (as Reserpine)	**max. 50ppb**	K (Potassium)	**max. 0.05ppm**
T210nm	**min. 5%**	Mg (Magnesium)	**max. 0.05ppm**
T230nm	**min. 45%**	Na (Sodium)	**max. 0.05ppm**
T254nm	**min. 99%**	Pb (Lead)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.1ppm**		

Cat. No. 232406

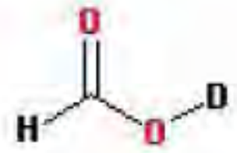
Formic acid 0.1% in Water

HPLC

Appearance	**Clear colorless liquid**
Assay (T)	**0.095-0.105%v/v**
T235nm	**min. 60%**
T245nm	**min. 90%**

Formic acid-d 95 wt% in D2O, 98 atom%D

CAS [925-94-0]; $CDHO_2$; M 48.04; D 1.27



Danger H:314; P:260-303+361+353-305+351+338-310-405-501

Cat. No. 305195

Formic acid-d 95 wt% in D2O, 98 atom%D

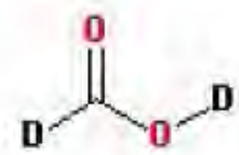
For NMR

Enrichment (NMR)	**min. 98Atom%D**

Formic-d acid-d 95 wt% in D2O, 98 atom%D

CAS [920-42-3]; EC 213-057-3; CD_2O_2; M 48.03

D 1.27; m.p. 5.9 °C; b.p. 101 °C; UN 1779,8+3,II,CF1



Danger H:314; P:260-303+361+353-305+351+338-310-405-501

Cat. No. 305295

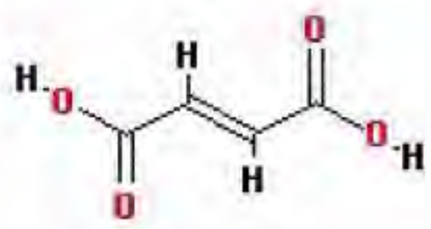
Formic-d acid-d 95 wt% in D2O, 98 atom%D

For NMR

Enrichment (NMR)	**min. 98Atom%D**

Fumaric acid

CAS [110-17-8]; EC 203-743-0; $C_4H_4O_4$; M 116.07



Warning; H:319; P:264-280-305+351+338-337+313

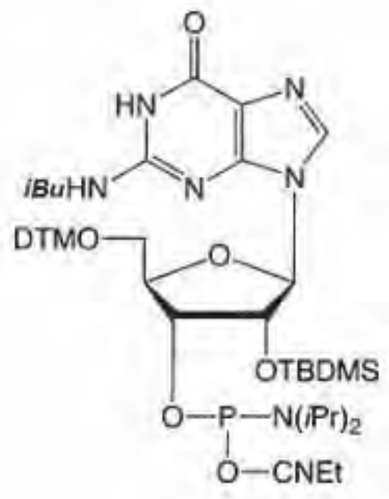
Cat. No. 061699

Fumaric acid

General reagent

Assay (T)	**99.0-101.0%w/w**	Heavy metals (as Pb)	**max. 0.001%**
Moisture	**max. 0.5%**	Maleic acid	**max. 0.1%**
Residue after ignition	**max. 0.1%**		

G(iBu)-OTBDMS-CE Phosphoramidite



$C_{50}H_{68}N_7O_{10}PSi$; M 963.13;

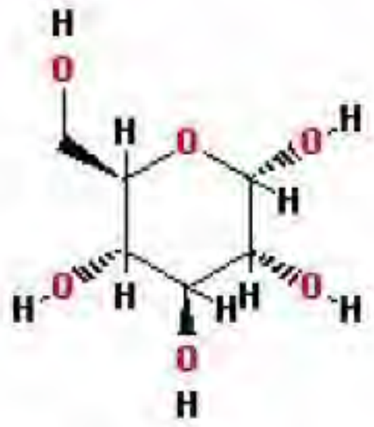
Cat. No. 182324

G(iBu)-OTBDMS-CE Phosphoramidite

DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

D-(+)-Glucose



CAS [50-99-7]; EC 200-075-1; $C_6H_{12}O_6$; M 180.16

Cat. No. 071423

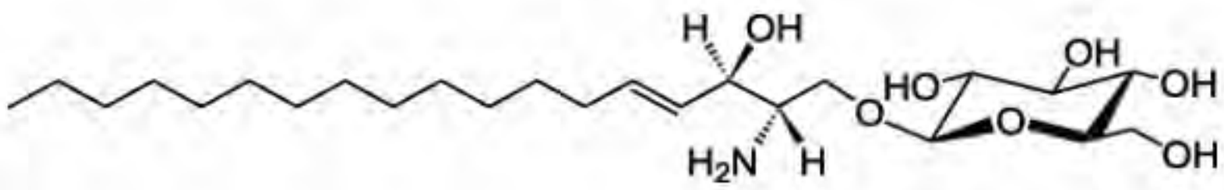
D-(+)-Glucose

Molecular biology

Application: Commonly used as a component for culture media, also suitable for Isolation of DNA.

Appearance	**White crystalline powder**	Water (KF)	**max. 0.2%w/w**
Solubility (10% in Water)	**Clear colorless solution**	DNase activity	**Not detected**
S.Rotation 20/D (C=10 in 0.05% Ammonia)	**52.5-53.3°**	RNase activity	**Not detected**
		Protease activity	**Not detected**
Residue after ignition	**max. 0.2%**		

Glucosyl-(β)-Sphingosine



CAS [52050-17-6]; $C_{24}H_{47}NO_7$; M 461.64;

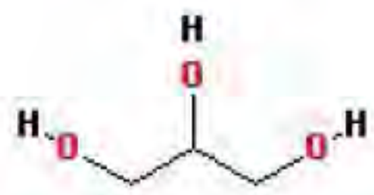
Cat. No. 056480

Glucosyl-(β)-Sphingosine

For synthesis

Appearance	**White to off-white solid**	NMR H^1 spectrum	**Conforms to structure**
Purity (TLC)	**min. 98%**	MS Spectra	**ESI+ Corresponds**
Purity (HPLC)	**min. 98%**		

Glycerol anhydrous



Synonym: *1,2,3-Propanetriol, Glycerin*

CAS [56-81-5]; EC 200-289-5; $C_3H_8O_3$; M 92.10

D 1.26; m.p. 18 °C; b.p. 290 °C;

Cat. No. 071205

Glycerol anhydrous

AR

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.5%**
Acrolein & Glucose	**Passes ACS test**	Sulfate (SO_4)	**max. 0.001%**
Color (APHA)	**max. 10**	Heavy metals (as Pb)	**max. 0.0002%**
Neutrality	**Passes ACS test**	Residue after ignition	**max. 0.005%**
Subs. darkened by Sulfuric Acid	**Passes ACS test**	Water (KF)	**max. 0.5%w/w**
Fatty acid esters (as Butyric acid)	**max. 0.05%**	Chlorinated compounds	**max. 0.003%**

Cat. No. 071255

Glycerol anhydrous

AR sterile

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.5%**
Acrolein & Glucose	**Passes ACS test**	Sulfate (SO_4)	**max. 0.001%**
Color (APHA)	**max. 10**	Heavy metals (as Pb)	**max. 0.0002%**
Neutrality	**Passes ACS test**	Sterility test	**Passes test**
Subs. darkened by Sulfuric Acid	**Passes ACS test**	Water (KF)	**max. 0.5%w/w**
Fatty acid esters (as Butyric acid)	**max. 0.05%**	Chlorinated compounds	**max. 0.003%**

1,2,3-Propanetriol, Glycerin.

Cat. No. 071287

Glycerol anhydrous

Sterile

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.5%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	A260nm (0.5M)	**max. 0.05AU**
Color (APHA)	**max. 15**	A280nm (0.5M)	**max. 0.02AU**
Aldehydes	**max. 0.001%**	DNase activity	**Not detected**
Assay (GC, on anhydrous basis)	**min. 99.5%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
pH (10% in Water)	**6-7**	Sterility test	**Passes test**

1,2,3-Propanetriol, Glycerin.

Cat. No. 071264

Glycerol anhydrous

Meets ACS/EP/BP/USP spec.

Identification A	**Passes EP/BP test**	Specific gravity	**1.249-1.260**
Identification B	**Passes EP/BP test**	Water (KF)	**max. 2.0%w/w**
Appearance	**Clear colorless liquid**	Aldehydes	**Passes EP/BP test**
Appearance of solution	**Clear colorless solution**	Purity (GC, on anhydrous basis)	**min. 99.0%**
Acidity or Alkalinity	**Passes EP/BP test**	Impurity A - (DEG)	**max. 0.1%**
Sugars	**Passes EP/BP test**	GC - Any impurity R(t) < main peak	**max. 0.1%**
Chloride (Cl)	**max. 0.001%**	GC - Total impur. R(t) > main peak	**max. 0.5%**
Heavy metals (as Pb)	**max. 0.0005%**	Sulphated ash	**max. 0.01%**
Refractive index (20/D)	**1.470-1.475**	Fatty acids and esters	**Passes USP test**
Assay (T)	**99.0-101.0%w/w**	Halogenated compounds	**max. 0.003%**
Organic volatile impurities	**Meets the requirements**	Esthers	**Passes EP/BP test**

Cat. No. 071203

Glycerol anhydrous

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Assay (T)	**98.0-101.0%w/w**
Identification B	**Passes EP/BP test**	Water (KF)	**max. 1.0%w/w**
Appearance	**Clear syrupy liquid**	Impurity A - (DEG)	**max. 0.1%**
Appearance of solution	**Clear colorless solution**	GC - Any impurity R(t) < main peak	**max. 0.1%**
Acidity or Alkalinity	**Passes EP/BP test**	GC - Total impur. R(t) > main peak	**max. 0.5%**
Aldehydes	**Passes EP/BP test**	Sulphated ash	**max. 0.01%**
Sugars	**Passes EP/BP test**	Halogenated compounds	**max. 0.0035%**
Purity (GC, on anhydrous basis)	**min. 99.0%**	Chloride (Cl)	**max. 0.001%**
Heavy metals (as Pb)	**max. 0.0005%**	Esthers	**Passes EP/BP test**
Refractive index (20/D)	**1.470-1.475**		

Cat. No. 071223

Glycerol anhydrous

Molecular biology

Application: Suitable for low-temperature storage of enzymes and bacterial cultures. Acts as a component in electrophoresis loading buffers, and in purification of proteins.

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.5%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	A260nm (0.5M)	**max. 0.05AU**
Color (APHA)	**max. 10**	A280nm (0.5M)	**max. 0.02AU**
Aldehydes	**max. 0.001%**	DNase activity	**Not detected**
Assay (GC, on anhydrous basis)	**min. 99.5%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
pH (10% in Water)	**6-7**		

Cat. No. 071202

Glycerol anhydrous

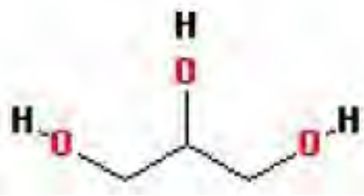
CP

Color (APHA)	**max. 20**
Assay (GC, on anhydrous basis)	**min. 99%**
Water (KF)	**max. 1%w/w**

Glycerol 87%

Synonym: *1,2,3-Propanetriol, Glycerin*

CAS [56-81-5]; EC 200-289-5; $C_3H_8O_3$; M 92.10



Cat. No. 071105

Glycerol 87%

AR

Appearance	**Clear colorless liquid**	Purity (GC, on anhydrous basis)	**min. 99.5%**
Acrolein & Glucose	**Passes ACS test**	Sulfate (SO_4)	**max. 0.001%**
Color (APHA)	**max. 10**	Heavy metals (as Pb)	**max. 0.0002%**
Neutrality	**Passes ACS test**	Residue after ignition	**max. 0.005%**
Subs. darkened by Sulfuric Acid	**Passes ACS test**	Water (KF)	**12-14%w/w**
Fatty acid esters (as Butyric acid)	**max. 0.05%**	Chlorinated compounds	**max. 0.003%**

Glycerol synthetic

Synonym: *1,2,3-Propanetriol, Glycerin*

CAS [8043-29-6]; EC 200-289-5; $C_3H_8O_3$; M 92.1

D 1.26; m.p. 18 °C; b.p. 290 °C;

Cat. No. 074208

Glycerol synthetic

Spectropure

Appearance	**Clear colorless liquid**	T240nm	**min. 85%**
Color (APHA)	**max. 10**	T260nm	**min. 90%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	T>300nm	**min. 95%**
Water (KF)	**max. 0.1%w/w**		
T210nm	**min. 50%**		
T230nm	**min. 78%**		

Cat. No. 074223

Glycerol synthetic

Molecular biology

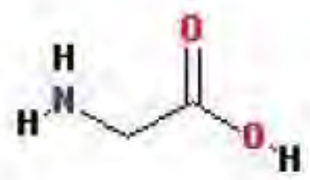
Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.5%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**	A260nm (0.5M)	**max. 0.02AU**
Color (APHA)	**max. 10**	A280nm (0.5M)	**max. 0.02AU**
Acidity (as Acetic acid)	**max. 0.003%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	RNase activity	**Not detected**
pH (10% in Water)	**6-7**	Protease activity	**Not detected**

See also Molecular Biology section, p. 423-458

Glycine

Synonym: *Aminoacetic acid, Aminoethanoic acid, Glycocoll*

CAS [56-40-6]; EC 200-272-2; $C_2H_5NO_2$; M 75.06



Cat. No. 071364

Glycine

Meets ACS/EP/BP/USP spec.

Identification A	**IR, Meets the requirements**	Chloride (Cl)	**max. 0.007%**
Identification B	**Meets the requirements**	Heavy metals (as Pb)	**max. 0.001%**
Identification C	**Meets the requirements**	Iron (Fe)	**max. 0.001%**
Assay ($HClO_4$)	**98.5-101.0%**	Sulfate (SO_4)	**max. 0.0065%**
Appearance of solution	**Meets the requirements**	Loss on drying (105°C)	**max. 0.2%**
pH (5% in water)	**5.9-6.4**	Residue after ignition	**max. 0.1%**
Ninhydrine-positive substances	**max. 0.5%**	Hydrolyzable subs.	**Meets the requirements**
Ammonium (NH4)	**max. 0.01%**	Organic volatile impurities	**Meets the requirements**
Arsenic (As)	**max. 0.0001%**		

Aminoethanoic acid,

Cat. No. 071323

Glycine

Molecular biology

Application: Commonly used in the preparation of Tris-glycine and Tris-glycine-SDS running buffers for polyacrylamide gel electrophoresis. Glycine is also a component of Towbin's transfer buffer for Western blots.

Appearance	**White crystalline powder**	A260nm (0.1M)	**max. 0.01AU**
Chloride (Cl)	**max. 0.01%**	A280nm (0.1M)	**max. 0.01AU**
Heavy metals (as Pb)	**max. 0.001%**	DNase activity	**Not detected**
pH (5% in water)	**5.9-6.3**	RNase activity	**Not detected**
Sulfate (SO_4)	**max. 0.01%**	Protease activity	**Not detected**
Assay ($HClO_4$)	**min. 99%**		

Guanidine hydrochloride

Synonym: *Aminoformamidine hydrochloride, Aminomethanamidine hydrochloride, Guanidinium ch*

CAS [50-01-1]; EC 200-002-3; CH_6N_3xHCl; M 95.53

Warning; H:302-315-319; P:280-301+312-305+351+338-321-362

Cat. No. 074023

Guanidine hydrochloride

Molecular biology

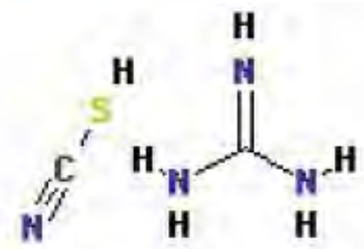
Application: Strong protein-denaturing agent used in the isolation of nucleic acids from cell extracts. Useful as an RNase inhibitor.

Appearance	**Colorless crystals**	A260 (6M)	**max. 0.03AU**
Solubility (6M in Water)	**Clear colorless solution**	A280 (6M)	**max. 0.02AU**
pH (6M in water)	**4.5-6.0**	Water (KF)	**max. 0.2%w/w**
Iron (Fe)	**max. 0.0005%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
Assay (T)	**min. 99.5%w/w**	Protease activity	**Not detected**

Guanidine thiocyanate

Synonym: *Guanidinium rhodanide, Guanidinium thiocyanate*

CAS [593-84-0]; EC 209-812-1; $C_2H_6N_4S$; M 118.16



Warning; H:302-312-332; EUH:032; P:261-280-301+312-304+340-322

Cat. No. 074123

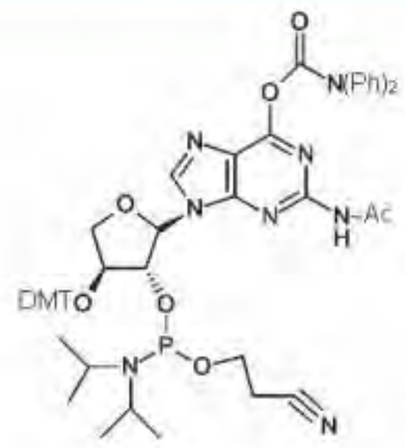
Guanidine thiocyanate

Molecular biology

Application: Chaotropic agent and strong denaturant; solubilize cells. Suitable for the isolation of RNA from cell extracts.

Appearance	**White crystalline powder**	Assay (T, dry)	**min. 99%**
Solubility (6M in Water)	**Clear colorless solution**	A280nm (6M)	**max. 1AU**
Melting point	**118-121°C**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	RNase activity	**Not detected**
pH (1M in water)	**5-7**	Protease activity	**Not detected**

G-TNA Phosphoramidite



$C_{54}H_{57}N_8O_9P$; M 993.05;

Cat. No. 459824

G-TNA Phosphoramidite

DNA synthesis

Appearance	**White to off-white solid**	NMR P^{31} spectrum	**Complies with structure**
Assay (HPLC)	**min. 95%**	Solubility (0.1M in ACN)	**Complete, clear**
NMR H^1 spectrum	**Complies with structure**		

HATU

Synonym: *O-(7-Azabenzotriazol-1-yl)-N,N,N',N'-tetramethyluronium hexafluorophosphate*

CAS [148893-10-1]; $C_{10}H_{15}F_6N_6OP$; M 380.23; m.p. 183 - 190 °C

Danger H:317-334; P:261-280-285-321-342+311

Cat. No. 455333

HATU

Peptide synthesis

Appearance	**White crystalline powder**
Purity (HPLC)	**min. 99%**
Solubility (0.3g in 2ml DMF)	**Complete, clear**

HBTU

Synonym: *O-(Benzotriazol-1-yl)-N,N,N',N'-tetramethyluronium hexafluorophosphate*

CAS [94790-37-1]; EC 423-020-5; $C_{11}H_{16}F_6N_5OP$; M 379.25

Danger H:228-315-319; P:210-240-241-280-305+351+338-501

Cat. No. 080133

HBTU

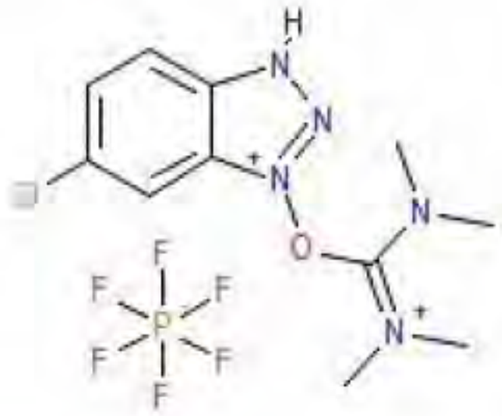
Peptide synthesis

Appearance	**White powder**
Solubility (10% in ACN)	**Clear solution**
Assay (HPLC)	**min. 98%**
Loss on drying (105°C)	**max. 0.5%**

HCTU

Synonym: *O-(6-Chlorobenzotriazol-1-yl)-N,N,N',N'-tetramethyluronium hexafluorophosphate*

CAS [330645-87-9]; $C_{11}H_{15}ClF_6N_5OP$; M 413.69; m.p. 185-190 °C



Danger H:228-302; P:210-240-241-280-301+312

Cat. No. 081033

HCTU

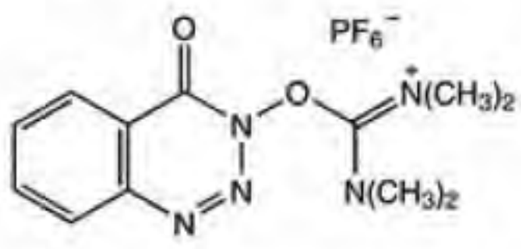
Peptide synthesis

Appearance	**White to off-white powder**
Assay (HPLC)	**min. 98%**
Water (KF)	**max. 0.5%w/w**
Identity (IR)	**Conforms to standard**

HDBTU

Synonym: *2-(3,4-Dihydro-4-oxo-1,2,3-benzotriazin-3-yl)-N,N,N',N'-tetramethyluronium hexafluorophosphate*

CAS [164861-52-3]; $C_{12}H_{16}N_5O_2PF_6$; M 407;



Cat. No. 308633

HDBTU

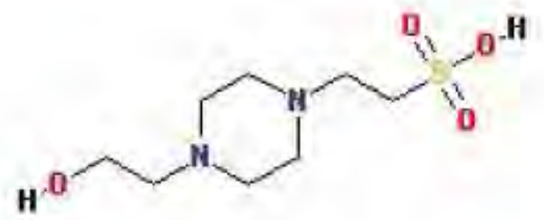
Peptide synthesis

Appearance	**White to off-white powder**	Loss on drying (105°C)	**max. 0.5%**
Identity (IR)	**Conforms to standard**	Solubility (10% in ACN)	**Complete, clear**
Assay (HPLC)	**min. 98.5%**		

HEPES free acid

Synonym: *4-(2-Hydroxyethyl)piperazine-1-ethanesulfonic acid, N-(2-Hydroxyethyl)piperazine-N'-(2-ethanesulfonic acid)*

CAS [7365-45-9]; EC 230-907-9; $C_8H_{18}N_2O_4S$; M 238.31



Cat. No. 080423 ***HEPES free acid***

Molecular biology

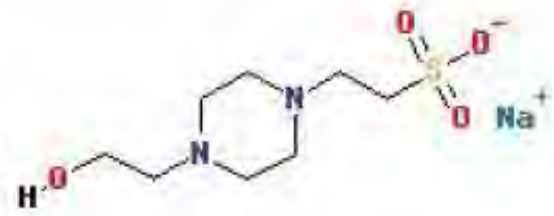
Application: Zwitterionic N-substituted acidic buffering substance used for culturing cells in vitro. Useful in transfections of mammalian cell lines.

Appearance	**White to off-white powder**	Assay (T)	**99-101%w/w**
Iron (Fe)	**max. 0.0005%**	A260nm (0.5M)	**max. 0.05AU**
Loss on drying (105°C)	**max. 0.5%**	A280nm (0.5M)	**max. 0.05AU**
Potassium (K)	**max. 0.1%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
pH (0.5M in water)	**5-6.5**	Protease activity	**Not detected**
Sulfate (SO_4)	**max. 0.05%**		

HEPES sodium salt

Synonym: *4-(2-Hydroxyethyl)piperazine-1-ethanesulfonic acid sodium salt, N-(2-Hydroxyethyl)piperazine-N'-(2-ethanesulfonic acid) sodium salt*

CAS [75277-39-3]; EC 278-169-7; $C_8H_{17}N_2NaO_4S$; M 260.27



Cat. No. 080323 ***HEPES sodium salt***

Molecular biology

Loss on drying (105°C)	**max. 3%**	A280nm (0.1M)	**max. 0.02AU**
Heavy metals (as Pb)	**max. 0.001%**	DNase activity	**Not detected**
pH (1% in water)	**9.5-11**	RNase activity	**Not detected**
Assay (T, dry)	**98-102%w/w**	Protease activity	**Not detected**
A260nm (0.1M)	**max. 0.04AU**		

n-Heptane 99%

CAS [142-82-5]; EC 205-563-8; C_7H_{16}; M 100.2

Danger H:225-304-315-336-400-410; P:210-241-301+310-303+361+353

Cat. No. 080707 ***n-Heptane 99%***

HPLC-S

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0003%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Water (KF)	**max. 0.01%w/w**
Color (APHA)	**max. 5**	T200nm	**min. 25%**
F254nm (as Quinine)	**max. 1ppb**	T220nm	**min. 82%**
F365nm (as Quinine)	**max. 1ppb**	T250nm	**min. 99%**
Assay (GC, on anhydrous basis)	**min. 99%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 080706

n-Heptane 99%

HPLC

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Water (KF)	**max. 0.01%w/w**
Color (APHA)	**max. 10**	T200nm	**min. 20%**
F254nm (as Quinine)	**max. 1ppb**	T220nm	**min. 80%**
F365nm (as Quinine)	**max. 1ppb**	T245nm	**min. 98%**
Assay (GC, on anhydrous basis)	**min. 99%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 080716

n-Heptane 99%

HPLC Preparative

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Color (APHA)	**max. 10**	T210nm	**min. 35%**
Acidity (as Acetic acid)	**max. 0.002%**	T220nm	**min. 70%**
Assay (GC, on anhydrous basis)	**min. 99.0%**	T260nm	**min. 95%**
Residue after evaporation	**max. 0.0005%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 080738

n-Heptane 99%

Spectrofluopure

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0003%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.01%w/w**
Color (APHA)	**max. 5**	T200nm	**min. 30%**
F254nm (as Quinine)	**max. 0.5ppb**	T220nm	**min. 85%**
F365nm (as Quinine)	**max. 0.5ppb**	T250nm	**min. 99%**
Assay (GC, on anhydrous basis)	**min. 99%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 080784

n-Heptane 99%

LV-GC for organic trace analysis

Acidity (as Acetic acid)	**max. 0.001%**	Residue after evaporation	**max. 0.0001%w/w**
Color (APHA)	**max. 5**	Water (KF)	**max. 0.01%w/w**
F254nm (as Quinine)	**max. 1ppb**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F365nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 2ng/L**
Assay (GC, on anhydrous basis)	**min. 99%**	GC/NPD any Pesticide (as Parathion)	**max. 5ng/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	Oil index (any hydrocarbon C10-C40)	**max. 0.05mg/L**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	GC/ECD volatile impu. (as E. Dibromide)	**max. 5ng/ml**
PAH test (<2ppb by HPLC)	**Passes test**	T200nm	**min. 25%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 080705

n-Heptane 99%

AR

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 5**	Benzene	**max. 0.005%v/v**
Subs. darkened by Sulfuric Acid	**Passes test**	Water (KF)	**max. 0.01%w/w**

Cat. No. 080751

n-Heptane 99%

AR-S glass distilled

Appearance	**Clear colorless liquid**	Co (Cobalt)	**max. 0.02ppm**
Acidity (as Acetic acid)	**max. 0.001%**	Cr (Chromium)	**max. 0.02ppm**
Color (APHA)	**max. 5**	Cu (Copper)	**max. 0.02ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Fe (Iron)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**99.0-100.0%**	Mg (Magnesium)	**max. 0.1ppm**
Benzene	**max. 0.005%v/v**	Mn (Manganese)	**max. 0.02ppm**
Water (KF)	**max. 0.01%w/w**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Residue after evaporation	**max. 0.0002%w/w**
Cd (Cadmium)	**max. 0.05ppm**		

Cat. No. 080703

n-Heptane 99%

Meets EP/BP spec.

Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.0%**	Ir (Iridium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Mn (Manganese)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.001%**	Mo (Molybdenum)	**max. 0.1ppm**
Sulfur compounds (as S)	**max. 0.005%**	Ni (Nickel)	**max. 0.02ppm**
Water (KF)	**max. 0.01%w/w**	Os (Osmium)	**max. 0.1ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Pd (Palladium)	**max. 0.05ppm**
Density (20/4°C)	**0.683-0.685gr/ml**	Pt (Platinum)	**max. 0.1ppm**
Refractive index (20/D)	**1.3870-1.3880**	Rh (Rhodium)	**max. 0.1ppm**
Boiling range	**97-98°C**	Ru (Ruthenium)	**max. 0.1ppm**
Benzene	**max. 0.002%v/v**	V (Vanadium)	**max. 0.05ppm**
Cr (Chromium)	**max. 0.02ppm**	Zn (Zinc)	**max. 0.1ppm**
Cu (Copper)	**max. 0.05ppm**		

Cat. No. 080736

n-Heptane 99%

Meets USP spec.

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 0.1ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Fe (Iron)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.0%**	Ir (Iridium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Mn (Manganese)	**max. 0.1ppm**
A200nm	**max. 0.70AU**	Mo (Molybdenum)	**max. 0.1ppm**
A210nm	**max. 0.40AU**	Ni (Nickel)	**max. 0.1ppm**
A220nm	**max. 0.10AU**	Os (Osmium)	**max. 0.1ppm**
A230nm	**max. 0.05AU**	Pd (Palladium)	**max. 0.1ppm**
A245nm	**max. 0.01AU**	Pt (Platinum)	**max. 0.1ppm**
A250nm	**max. 0.01AU**	Rh (Rhodium)	**max. 0.1ppm**
A260nm	**max. 0.01AU**	Ru (Ruthenium)	**max. 0.1ppm**
A400nm	**max. 0.01AU**	V (Vanadium)	**max. 0.1ppm**
Refractive index (20/D)	**1.3850-1.3890**	Zn (Zinc)	**max. 0.1ppm**
Cr (Chromium)	**max. 0.1ppm**		

Cat. No. 080702

n-Heptane 99%

CP

Appearance	**Clear colorless liquid**	n-Hexane	**max. 1%**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.002%w/w**
Assay (GC, on anhydrous basis)	**min. 99%**	Water (KF)	**max. 0.02%w/w**

n-Heptane

CAS [142-82-5]; EC 205-563-8; C_7H_{16}; M 100.2

D 0.683; m.p. -91 °C; b.p. 98 °C; UN 1206,3,II,F1

Danger H:225-304-315-336-400-410; P:210-241-301+310-303+361+353

Cat. No. 080506 ***n-Heptane HPLC***

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T200nm	**min. 20%**
Color (APHA)	**max. 10**	T210nm	**min. 45%**
Assay (GC, on anhydrous basis)	**min. 95%**	T220nm	**min. 80%**
Residue after evaporation	**max. 0.0005%w/w**	T250nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 080584 ***n-Heptane LV-GC for organic trace analysis***

Acidity (as Acetic acid)	**max. 0.001%**	Residue after evaporation	**max. 0.0001%w/w**
Color (APHA)	**max. 5**	Water (KF)	**max. 0.01%w/w**
F254nm (as Quinine)	**max. 1ppb**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F365nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 2ng/L**
Assay (GC, on anhydrous basis)	**min. 96%**	GC/NPD any Pesticide (as Parathion)	**max. 5ng/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	Oil index (any hydrocarbon C10-C40)	**max. 0.05mg/L**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	GC/ECD volatile impu. (as E. Dibromide)	**max. 5ng/ml**
PAH test (<2ppb by HPLC)	**Passes test**	T200nm	**min. 25%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 080505 ***n-Heptane AR***

Appearance	**Clear colorless liquid**	n-Hexane	**max. 0.5%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 5**	Benzene	**max. 0.005%v/v**
Subs. darkened by Sulfuric Acid	**Passes test**	Water (KF)	**max. 0.01%w/w**
Assay (GC, on anhydrous basis)	**min. 95%**		

Cat. No. 080551 ***n-Heptane AR-S glass distilled***

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 5**	Cr (Chromium)	**max. 0.02ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Cu (Copper)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 96%**	Fe (Iron)	**max. 0.1ppm**
n-Hexane	**max. 0.5%**	Mg (Magnesium)	**max. 0.1ppm**
Benzene	**max. 0.005%v/v**	Mn (Manganese)	**max. 0.02ppm**
Water (KF)	**max. 0.01%w/w**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Residue after evaporation	**max. 0.0002%w/w**

Cat. No. 080503

n-Heptane

Meets EP/BP spec.

Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 95.0%**	Ir (Iridium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Mn (Manganese)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.001%**	Mo (Molybdenum)	**max. 0.1ppm**
Sulfur compounds (as S)	**max. 0.005%**	Ni (Nickel)	**max. 0.02ppm**
Water (KF)	**max. 0.01%w/w**	Os (Osmium)	**max. 0.1ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Pd (Palladium)	**max. 0.05ppm**
Density (20/4°C)	**0.683-0.685gr/ml**	Pt (Platinum)	**max. 0.1ppm**
Refractive index (20/D)	**1.3860-1.3880**	Rh (Rhodium)	**max. 0.1ppm**
Boiling range	**97-98°C**	Ru (Ruthenium)	**max. 0.1ppm**
Benzene	**max. 0.002%v/v**	V (Vanadium)	**max. 0.05ppm**
Cr (Chromium)	**max. 0.02ppm**	Zn (Zinc)	**max. 0.1ppm**
Cu (Copper)	**max. 0.05ppm**		

Cat. No. 080547

n-Heptane

Extra dry

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 95%**
Acidity (as Acetic acid)	**max. 0.001%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 5**	Water (KF)	**max. 0.003%w/w**

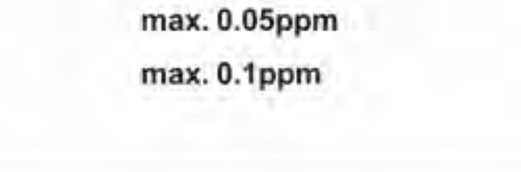
Cat. No. 080502

n-Heptane

CP

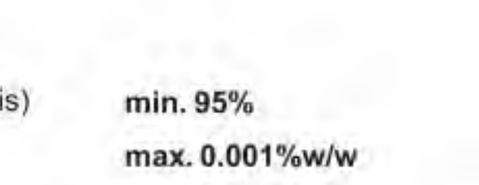
Appearance	**Clear colorless liquid**	n-Hexane	**max. 1%**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.002%w/w**
Assay (GC, on anhydrous basis)	**min. 95%**	Water (KF)	**max. 0.02%w/w**

Heptane-d16, 99 atom%D



CAS [33838-52-7]; C_7D_{16}; M 116.30; D 0.79

Danger H:225-304-315-336-410; P:210-241-301+310-303+361+353-405-501



Cat. No. 305395

Heptane-d16, 99 atom%D

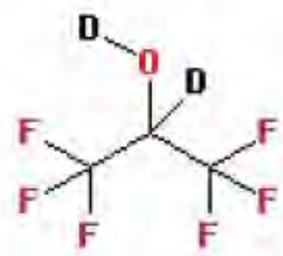
For NMR

Enrichment (NMR) **min. 99Atom%D**

1,1,1,3,3,3-Hexafluoro-2-propanol-d2 99atom%D

CAS [38701-74-5]; EC 254-091-9; $CF_3CD(OD)CF_3$; M 170.05
D 1.64; m.p. -4 °C; b.p. 59 °C; UN 2922,8+6.1,II,CT1

Danger H:302-314-332; P:260-303+361+353-305+351+338-310-405-501



Cat. No. 306895

1,1,1,3,3,3-Hexafluoro-2-propanol-d2 99atom%D

For NMR

Appearance	**Clear colorless liquid**
Enrichment (NMR)	**min. 99Atom%D**
Water (KF)	**max. 0.1% H_2O+D_2O**

1,1,1,3,3,3-Hexafluoro-2-propanol

Synonym: *HFP, Hexafluoroisopropanol*

CAS [920-66-1]; EC 213-059-4; $C_3H_2F_6O$; M 168.04

D 1.596; m.p. -4 °C; b.p. 59 °C; UN 2922,8+6.1,II,CT1

Danger H:302-314-332; P:260-303+361+353-305+351+338-310-405-501

Cat. No. 083378 ***1,1,1,3,3,3-Hexafluoro-2-propanol***

LC-MS

Color (APHA)	**max. 10**	Cu (Copper)	
Assay (GC, on anhydrous basis)	**min. 99.8%**	Fe (Iron)	
Residue after evaporation	**max. 0.0005%w/w**	K (Potassium)	**max. 0.5ppm**
Water (KF)	**max. 0.02%w/w**	Li (Lithium)	**max. 0.1ppm**
T200nm	**50-105%**	Mg (Magnesium)	**max. 0.1ppm**
T240nm	**98-105%**	Mn (Manganese)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Mo (Molybdenum)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Na (Sodium)	**max. 1ppm**
Bi (Bismuth)	**max. 0.1ppm**	Ni (Nickel)	**max. 0.02ppm**
Ca (Calcium)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
Cd (Cadmium)	**max. 0.05ppm**	Sr (Strontium)	**max. 0.1ppm**
Co (Cobalt)	**max. 0.02ppm**	Zn (Zinc)	**max. 0.1ppm**
Cr (Chromium)	**max. 0.02ppm**	LC-MS suitability test	**Complies**

Filtered through 0.2µm, filled under inert gas

Cat. No. 083306 ***1,1,1,3,3,3-Hexafluoro-2-propanol***

HPLC

Appearance	**Clear colorless liquid**	T195nm	**100-110%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T200nm	**98-105%**
Water (KF)	**max. 0.02%w/w**	T240nm	**98-102%**

Filtered through 0.2µm, filled under inert gas

Cat. No. 083338 ***1,1,1,3,3,3-Hexafluoro-2-propanol***

Spectrofluopure

Color (APHA)	**max. 5**	Water (KF)	**max. 0.02%w/w**
F254nm (as Quinine)	**max. 2ppb**	T195nm	**100-110%**
F365nm (as Quinine)	**max. 2ppb**	T200nm	**98-105%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T240nm	**98-105%**

Filtered through 0.2µm, filled under inert gas

Cat. No. 083305 ***1,1,1,3,3,3-Hexafluoro-2-propanol***

AR

Color (APHA)	**max. 10**
Assay (GC, on anhydrous basis)	**min. 99.8%**
Residue after evaporation	**max. 0.0005%w/w**
Water (KF)	**max. 0.05%w/w**

Cat. No. 083351

1.1.1.3.3.3-Hexafluoro-2-propanol

AR-S glass distilled

Color (APHA)	**max. 10**	Co (Cobalt)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Cr (Chromium)	**max. 0.02ppm**
Residue after evaporation	**max. 0.0005%w/w**	Cu (Copper)	**max. 0.02ppm**
Water (KF)	**max. 0.02%w/w**	Fe (Iron)	**max. 0.1ppm**
T200nm	**50-105%**	Mg (Magnesium)	**max. 0.1ppm**
T240nm	**98-105%**	Mn (Manganese)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Ni (Nickel)	**max. 0.02ppm**
B (Boron)	**max. 0.02ppm**	Pb (Lead)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**
Cd (Cadmium)	**max. 0.05ppm**		

Cat. No. 083333

1.1.1.3.3.3-Hexafluoro-2-propanol

Peptide synthesis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.02%w/w**
Color (APHA)	**max. 10**	Fe (Iron)	**max. 0.1ppm**
Free Amines (Kaiser)	**max. 0.0002%**	Mg (Magnesium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Pb (Lead)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0005%w/w**	Zn (Zinc)	**max. 0.1ppm**

Filtered through 0.2µm, filled under inert gas.

Iso-Hexane

Synonym: *2-Methylpentane*

CAS [64742-49-0]; EC 931-254-9; C_6H_{14}; M 86.18

D 0.66; m.p. -154 °C; b.p. 60 °C; UN 1208,3,II,F1

Danger H:225-302-304-315-336-411; P:210-241-301+310-303+361+353-405

Cat. No. 091406

Iso-Hexane

HPLC

Color (APHA)	**max. 10**	T220nm	**min. 80%**
Assay (Mix. of C6H14 isomers)	**min. 99%**	T230nm	**min. 95%**
n-Hexane	**max. 3%**	T260nm	**min. 99%**
Residue after evaporation	**max. 0.0002%w/w**	F254nm (as Quinine)	**max. 1ppb**
Water (KF)	**max. 0.005%w/w**	F365nm (as Quinine)	**max. 1ppb**
T210nm	**min. 55%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 091484

Iso-Hexane

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	PAH test (<2ppb by HPLC)	**Passes test**
Color (APHA)	**max. 5**	Residue after evaporation	**max. 0.0001%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Water (KF)	**max. 0.005%w/w**
F254nm (as Quinine)	**max. 1ppb**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F365nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 2ng/L**
Assay (Mix. of C6H14 isomers)	**min. 96%**	GC/NPD any Pesticide (as Parathion)	**max. 5ng/L**
n-Hexane	**max. 3%**	Oil index (any hydrocarbon C10-C40)	**max. 0.05mg/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	T200nm	**min. 30%**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 091426

Iso-Hexane

Pesti-S

Acidity (as Acetic acid)	**max. 0.002%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.0002%w/w**
Assay (Mix. of C6H14 isomers)	**min. 99%**	Water (KF)	**max. 0.005%w/w**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 091405

Iso-Hexane

AR

Thiophene test	**Passes ACS test**	Sulfur compounds (as S)	**max. 0.005%**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.01%w/w**
Assay (Mix. of C6H14 isomers)	**min. 96%**	Cu (Copper)	**max. 0.00001%**
n-Hexane	**max. 3%**	Fe (Iron)	**max. 0.00005%**
Heavy metals (as Pb)	**max. 0.00005%**	Zn (Zinc)	**max. 0.00005%**
Residue after evaporation	**max. 0.0005%w/w**		

Cat. No. 091451

Iso-Hexane

AR-S glass distilled

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Thiophene test	**Passes test**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 5**	Cr (Chromium)	**max. 0.02ppm**
Assay (Mix. of C6H14 isomers)	**min. 96%**	Cu (Copper)	**max. 0.02ppm**
n-Hexane	**max. 3%**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0002%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Sulfur compounds (as S)	**max. 0.005%**	Mn (Manganese)	**max. 0.02ppm**
Water (KF)	**max. 0.01%w/w**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**		

Cat. No. 091402

Iso-Hexane

CP

Color (APHA)	**max. 10**
Assay (Mix. of C6H14 isomers)	**min. 95%**
Residue after evaporation	**max. 0.002%w/w**
Water (KF)	**max. 0.03%w/w**

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n-Hexane 99%

CAS [110-54-3]; EC 203-777-6; C_6H_{14}; M 86.18

D 0.659; m.p. -95 °C; b.p. 69 °C; UN 1208,3,II,F1

Danger H:225-304-315-336-373-361f-411; P:210-241-301+310-303+361+353-501

Cat. No. 080906

n-Hexane 99%

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T200nm	**min. 25%**
Color (APHA)	**max. 10**	T210nm	**min. 50%**
Assay (GC, on anhydrous basis)	**min. 99.0%**	T220nm	**min. 85%**
Residue after evaporation	**max. 0.0003%w/w**	T245nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 080984

n-Hexane 99%

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0001%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.005%w/w**
Color (APHA)	**max. 5**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F254nm (as Quinine)	**max. 1ppb**		
F365nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 2ng/L**
Assay (GC, on anhydrous basis)	**min. 99%**		
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	GC/NPD any Pesticide (as Parathion)	**max. 5ng/L**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	Oil index (any hydrocarbon C10-C40)	**max. 0.05mg/L**
PAH test (<2ppb by HPLC)	**Passes test**	T200nm	**min. 30%**

Cat. No. 080960

n-Hexane 99%

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.005%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Color (APHA)	**max. 10**		
Assay (GC, on anhydrous basis)	**min. 99%**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Residue after evaporation	**max. 0.0003%w/w**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 080905

n-Hexane 99%

AR

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 5**	Benzene	**max. 0.001%v/v**
Assay (GC, on anhydrous basis)	**min. 99%**	Water (KF)	**max. 0.01%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Thiophene test	**Passes test**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 080951

n-Hexane 99%

AR-S glass distilled

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Co (Cobalt)	**max. 0.02ppm**
Thiophene test	**Passes ACS test**	Cr (Chromium)	**max. 0.02ppm**
Color (APHA)	**max. 5**	Cu (Copper)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.0%**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0002%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Water (KF)	**max. 0.01%w/w**	Mn (Manganese)	**max. 0.02ppm**
Total aromatics (as Benzene)	**max. 0.001%**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**		

Cat. No. 080947

n-Hexane 99%

Extra dry

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99%**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Water (KF)	**max. 0.003%w/w**

n-Hexane

CAS [110-54-3]; EC 203-777-6; C_6H_{14}; M 86.18

D 0.66; m.p. -95 °C; b.p. 69 °C; UN 1208,3,II,F1

Danger H:225-304-315-336-373-361f-411; P:210-241-301+310-303+361+353-405-501

Cat. No. 082907 ***n-Hexane HPLC-S***

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T195nm	**min. 12%**
Color (APHA)	**max. 5**	T200nm	**min. 35%**
F254nm (as Quinine)	**max. 1ppb**	T210nm	**min. 60%**
F365nm (as Quinine)	**max. 1ppb**	T217nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 96%**	T225nm	**min. 90%**
Residue after evaporation	**max. 0.0002%w/w**	T245nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 082906 ***n-Hexane HPLC***

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T200nm	**min. 25%**
Color (APHA)	**max. 10**	T210nm	**min. 50%**
Assay (GC, on anhydrous basis)	**min. 95%**	T220nm	**min. 85%**
Residue after evaporation	**max. 0.0003%w/w**	T245nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 082938 ***n-Hexane Spectrofluopure***

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T195nm	**min. 10%**
Color (APHA)	**max. 10**	T210nm	**min. 60%**
F254nm (as Quinine)	**max. 1ppb**	T217nm	**min. 80%**
F365nm (as Quinine)	**max. 1ppb**	T225nm	**min. 90%**
Assay (GC, on anhydrous basis)	**min. 96%**	T245nm	**min. 98%**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 082984 ***n-Hexane LV-GC for organic trace analysis***

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0001%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.005%w/w**
Color (APHA)	**max. 5**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F254nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 2ng/L**
F365nm (as Quinine)	**max. 1ppb**	GC/NPD any Pesticide (as Parathion)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 96%**	Oil index (any hydrocarbon C10-C40)	**max. 0.05mg/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	T200nm	**min. 30%**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**		
PAH test (<2ppb by HPLC)	**Passes test**		

Filtered through 0.2µm, filled under inert gas.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Cat. No. 082960

n-Hexane

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.005%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Color (APHA)	**max. 10**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 96%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 082925

n-Hexane

Pesti-S

Appearance	**Clear colorless liquid**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Acidity (as Acetic acid)	**max. 0.001%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Color (APHA)	**max. 5**	Residue after evaporation	**max. 0.0003%w/w**
Assay (GC, on anhydrous basis)	**min. 96%**	Water (KF)	**max. 0.005%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 082910

n-Hexane

MOS

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 10ppb**
Acidity (as Acetic acid)	**max. 0.001%**	Fe (Iron)	**max. 30ppb**
Color (APHA)	**max. 5**	Li (Lithium)	**max. 30ppb**
Assay (GC, on anhydrous basis)	**min. 95%**	Mg (Magnesium)	**max. 30ppb**
Residue after evaporation	**max. 0.0005%w/w**	Mn (Manganese)	**max. 20ppb**
Water (KF)	**max. 0.01%w/w**	Mo (Molybdenum)	**max. 30ppb**
Chloride (Cl)	**max. 1ppm**	Ni (Nickel)	**max. 20ppb**
Ag (Silver)	**max. 20ppb**	Pb (lead)	**max. 30ppb**
Al (Aluminum)	**max. 20ppb**	Sb (Antimony)	**max. 30ppb**
As (Arsenic)	**max. 20ppb**	Si (Silicon)	**max. 50ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 30ppb**
Ba (Barium)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Be (Beryllium)	**max. 20ppb**	V (Vanadium)	**max. 50ppb**
Cd (Cadmium)	**max. 20ppb**	Zn (Zinc)	**max. 50ppb**
Co (Cobalt)	**max. 20ppb**	Particle count > 0.5µm	**max. 100P/ml**
Cr (Chromium)	**max. 20ppb**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 082905

n-Hexane

AR

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 95%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.0005%w/w**
Thiophene test	**Passes ACS test**	Benzene	**max. 0.001%v/v**
Color (APHA)	**max. 5**	Water (KF)	**max. 0.01%w/w**

Cat. No. 082951

n-Hexane

AR-S glass distilled

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Co (Cobalt)	**max. 0.02ppm**
Thiophene test	**Passes ACS test**	Cr (Chromium)	**max. 0.02ppm**
Color (APHA)	**max. 5**	Cu (Copper)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 96%**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0002%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Water (KF)	**max. 0.01%w/w**	Mn (Manganese)	**max. 0.02ppm**
Benzene	**max. 0.001%v/v**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**		

Cat. No. 082947

n-Hexane

Extra dry

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 95%**
Acidity (as Acetic acid)	**max. 0.001%**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 5**	Water (KF)	**max. 0.002%w/w**

Cat. No. 082902

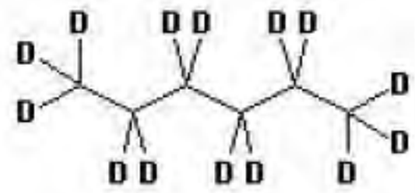
n-Hexane

CP

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.05%w/w**
Assay (GC, on anhydrous basis)	**min. 95%**	Benzene	**max. 0.005%v/v**
Residue after evaporation	**max. 0.005%w/w**		

Hexane-d14, 99 atom%D

CAS [21666-38-6]; C_6D_{14}; M 100.26; D 0.96



Danger H:225-304-315-336-373-361f-411; P:210-241-301+310-303+361+353-405-501

Cat. No. 305495

Hexane-d14, 99 atom%D

For NMR

Enrichment (NMR) **min. 99Atom%D**

Hexanes

CAS [110-54-3]; EC 203-777-6; C_6H_{14}; M 86.18

D 0.66; m.p. -95 °C; b.p. 68-70 °C; UN 1208,3,II,F1

Danger H:225-304-315-336-373-361f-411; P:210-241-301+310-303+361+353

Cat. No. 083005

Hexanes

AR

Assay (Total Hexanes+Methylcyclopentane)	**min. 98.5%**	Water (KF)	**max. 0.01%w/w**
		Thiophene test	**Passes ACS test**
Acidity (as Acetic acid)	**max. 0.002%**	Sulfur compounds (as S)	**max. 0.005%**
Color (APHA)	**max. 10**		
Residue after evaporation	**max. 0.0005%w/w**		

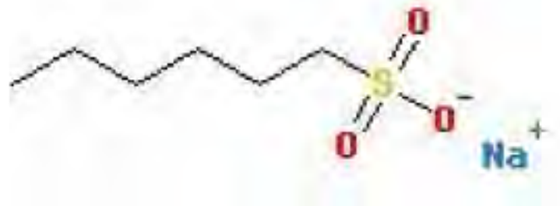
Cat. No. 083002 ***Hexanes***

CP

Appearance	**Clear colorless liquid**
Residue after evaporation	**max. 0.005%w/w**
Water (KF)	**max. 0.02%w/w**

1-Hexanesulfonic acid sodium salt

CAS [2832-45-3]; EC 220-601-3; $C_6H_{13}NaO_3S$; M 188.22



Cat. No. 085906 ***1-Hexanesulfonic acid sodium salt***

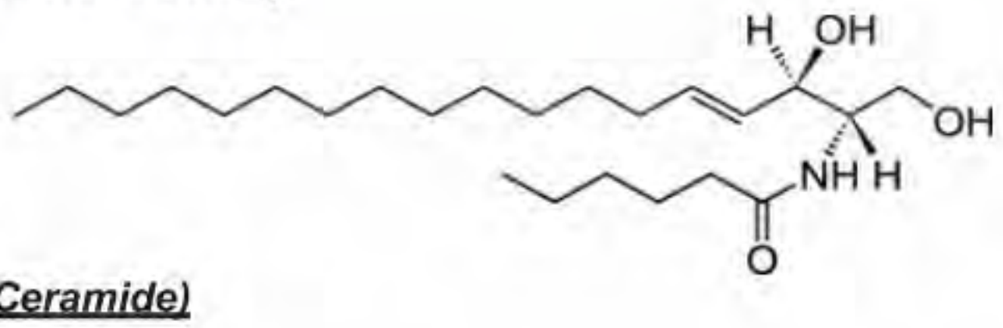
HPLC

Assay (T)	**min. 99%w/w**	T200nm (5mM)	**min. 70%**
pH (0.5M in water)	**5.5-7.5**	T220nm (5mM)	**min. 90%**
Loss on drying (105°C)	**max. 2%**	T250nm (5mM)	**min. 98%**

N-Hexanoyl-D-erythro-Sphingosine (C6 Ceramide)

Synonym: *Ceramide 6; N-(hexanoyl)-sphing-4-enine.*

CAS [124753-97-5]; $C_{24}H_{47}NO_3$; M 397.6;



Cat. No. 039380 ***N-Hexanoyl-D-erythro-Sphingosine (C6 Ceramide)***

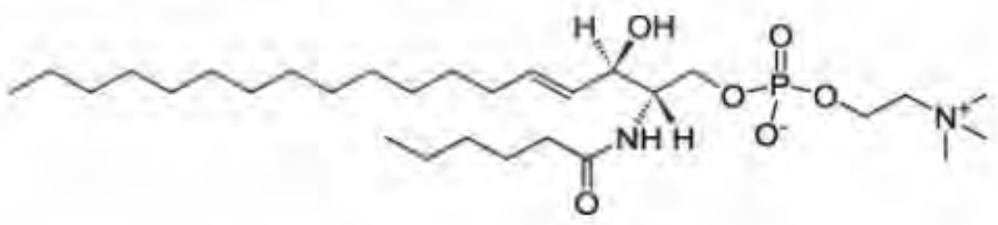
For synthesis

Appearance	**White powder**
Assay (HPLC)	**min. 98%**
Purity (TLC)	**min. 98%**
NMR H^1 spectrum	**Conforms to structure**

N-Hexanoyl-D-erythro-Sphingosylphosphorylcholine (Hexanoyl Sphingomyelin)

Synonym: *N-(hexanoyl)-sphing-4-enine-1-phosphocholine*

CAS [182493-45-4]; $C_{29}H_{59}N_2O_6P$; M 562.8;



Cat. No. 196780 ***N-Hexanoyl-D-erythro-Sphingosylphosphorylcholine (Hexanoyl Sphingomyelin)***

For synthesis

Appearance	**White to off white solid**	Water (KF)	**max. 8%w/w**
Purity (HPLC)	**min. 98%**	NMR H^1 spectrum	**Conforms to structure**
Purity (TLC)	**min. 98%**	MS Spectra	**Conforms to structure**

See also Sphingolipids & Phospholipids section, p. 459-474

HOBT Hydrate

Synonym: *1-Hydroxybenzotriazole hydrate*

CAS [123333-53-9]; EC 219-989-7; $C_6H_5N_3OxH_2O$; M 135.12

Danger H:203; P:210-230-250-373

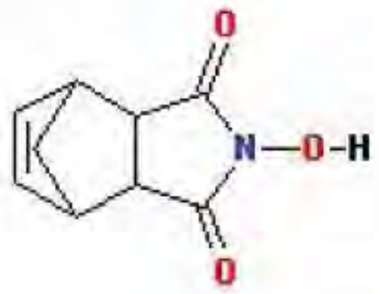
Cat. No. 081233

HOBT Hydrate

Peptide synthesis

Appearance	**White to off white powder**	Identity (IR)	**Conforms to standard**
Water (KF)	**11-16%w/w**	Melting point	**155-160°C**
Assay (T, dry)	**97-101%w/w**		

HONB



Synonym: *N-Hydroxy-5-norbornene-2,3-dicarboxylimide*

CAS [21715-90-2]; EC 244-538-6; $C_9H_9NO_3$; M 179.17

Warning; H:315-319-335; P:261-280-305+351+338-405-501

Cat. No. 275533

HONB

Peptide synthesis

Appearance	**White to off-white solid**
Purity (HPLC)	**min. 99%**
Melting range	**164-170°C**
Water (KF)	**max. 0.5%w/w**

HOOBt

Synonym: *3-Hydroxy-1,2,3-benzotriazin-4(3H)-one*

CAS [28230-32-2]; EC 248-916-1; $C_7H_5N_3O_2$; M 163.05

Danger H:200-228-315-319-335; P:210-305+351+338-373-401-405-501

Cat. No. 308233

HOOBt

Peptide synthesis

Appearance	**White to off-white solid**	Water (KF)	**max. 2.0%w/w**
Identity (IR)	**Conforms to standard**	Solubility (0.3g in 2ml DMF)	**Complete, clear**
Purity (HPLC)	**min. 99.0%**		

Hydrochloric acid 37%

CAS [7647-01-0]; EC 231-595-7; HCl; M 36.45

D 1.18; m.p. -66 °C; b.p. 83 °C; UN 1789,8,II,C1

Danger H:314-335-336; P:260-303+361+353-305+351+338-310-405-501

Cat. No. 084105 ***Hydrochloric acid 37%***

AR

Appearance	**Clear colorless liquid**	Free Chlorine	**max. 0.0001%**
Color (APHA)	**max. 10**	Arsenic (As)	**max. 0.000001%**
Assay (T)	**36.5-38.0%w/w**	Heavy metals (as Pb)	**max. 0.0001%**
Bromides (Br)	**max. 0.005%**	Iron (Fe)	**max. 0.00002%**
Sulfate (SO_4)	**max. 0.0001%**	Extractable organic substances	**Passes ACS test**
Sulfite (SO_3)	**max. 0.0001%**	Residue after ignition	**max. 0.0005%**

Cat. No. 084103 ***Hydrochloric acid 37%***

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Heavy metals (as Pb)	**max. 0.0002%**
Identification B	**Passes EP/BP test**	Sulfate (SO_4)	**max. 0.002%**
Identification C	**Passes EP/BP test**	Free chlorine (0.01M $Na_2S_2O_3$)	**max. 0.2ml**
Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.01%w/w**
Assay (T)	**35.0-39.0%w/w**	Relative density (20°C)	**1.17-1.19**
Appearance of solution	**Passes EP/BP test**		

Cat. No. 084136 ***Hydrochloric acid 37%***

Meets USP spec.

Appearance	**Clear liquid**	Free bromine or chlorine	**Passes USP test**
Identification	**Passes USP test**	Bromides or Iodides	**Passes USP test**
Color (APHA)	**max. 20**	Sulfate (SO_4)	**Passes USP test**
Assay (T)	**36.5-38.0%w/w**	Sulfite (SO_3)	**Passes USP test**
Residue after ignition	**max. 0.008%**		

Cat. No. 084102 ***Hydrochloric acid 37%***

CP

Appearance	**Clear colorless liquid**
Free Chlorine	**max. 0.002%**
Residue after evaporation	**max. 0.01%w/w**
Assay (T)	**36-38%w/w**

Hydrochloric acid 32%

CAS [7647-01-0]; EC 231-595-7; HCl; M 36.45

D 1.16; m.p. -40 °C; b.p. 84 °C; UN 1789,8,II,C1

Danger H:314-335-336; P:260-303+361+353-305+351+338-310

Cat. No. 084605 ***Hydrochloric acid 32%***

AR

Appearance	**Clear colorless liquid**	Sulfite (SO_3)	**max. 0.0001%**
Color (APHA)	**max. 10**	Free Chlorine	**max. 0.0001%**
Assay (T)	**32-33%w/w**	Heavy metals (as Pb)	**max. 0.0001%**
Arsenic (As)	**max. 0.00001%**	Iron (Fe)	**max. 0.00002%**
Bromides (Br)	**max. 0.005%**	Extractable organic substances	**Passes ACS test**
Sulfate (SO_4)	**max. 0.0001%**	Residue after ignition	**max. 0.0005%**

Cat. No. 084602

Hydrochloric acid 32%

CP

Appearance	**Clear liquid**
Free Chlorine	**max. 0.002%**
Residue after evaporation	**max. 0.01%w/w**
Assay (T)	**32-33%w/w**

Hydrogen peroxide 30%

CAS [7722-84-1]; EC 231-765-0; H_2O_2; M 34

D 1.13; m.p. -26 °C; b.p. 107 °C; UN 2014,5.1(8),II,OC1

Danger H:225-272-302-318; P:210-221-303+361+353-305+351+338-310

Cat. No. 085505

Hydrogen peroxide 30%

AR

Appearance	**Clear colorless liquid**	Heavy metals (as Pb)	**max. 0.0001%**
Assay	**min. 29%w/w**	Residue after evaporation	**max. 0.02%w/w**
Iron (Fe)	**max. 0.00005%**		

Cat. No. 085503

Hydrogen peroxide 30%

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Acidity (0.1M NaOH)	**0.05-0.5ml**
Identification B	**Passes EP/BP test**	Organic Stabilizers	**max. 0.05%**
Identification C	**Passes EP/BP test**	Assay	**29.0-31.0%w/w**
Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.2%w/w**

Cat. No. 085502

Hydrogen peroxide 30%

CP

Appearance	**Clear liquid**
Assay	**29-32%w/w**
Residue after evaporation	**max. 0.2%w/w**

Hydrogen peroxide 3%

CAS [7722-84-1]; EC 231-765-0; H_2O_2; M 34.0128

H:314; EUH:210;

Cat. No. 085303

Hydrogen peroxide 3%

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Organic Stabilizers	**max. 0.025%**
Identification C	**Passes EP/BP test**	Assay	**2.5-3.5%w/w**
Identification B	**Passes EP/BP test**	Residue after evaporation	**max. 0.2%w/w**
Appearance	**Clear colorless liquid**		
Acidity (0.1M NaOH)	**0.05-1.0ml**		

Cat. No. 085302

Hydrogen peroxide 3%

CP

Appearance	**Clear colorless liquid**	Ethanol	**68-72%**
Acidity (as Acetic acid)	**max. 0.002%**	Water	**28-32%**
Color (APHA)	**max. 15**	Bitrex®	**0.0005-0.0015%w/w**
Residue after evaporation	**max. 0.001%w/w**		

HYDROQUANT™ Product List

Cat. No.	Product	Description and uses	Standard packages
082148	HYDROQUANT™-Uniquant 1	General one-component reagent for volumetric KF titration; 1ml = 1.1-1.4mg H_20; used with HYDROQUANT™-Methanol.	500 ml, 1l
082348	HYDROQUANT™-Uniquant 2	General one-component reagent for volumetric KF titration; 1ml = 2.1-2.4mg H_20; used with HYDROQUANT™-Methanol.	500 ml, 1l
082548	HYDROQUANT™-Uniquant 5	General one-component reagent for volumetric KF titration; 1ml = 5.2-5.6mg H_20; used with HYDROQUANT™-Methanol.	500 ml, 1l
136847	HYDROQUANT™-Methanol	Working medium for general use in volumetric Karl-Fischer titration; max. 50ppm Water, used with HYDROQUANT™-Uniquant 5, 2, or 1.	500 ml, 1 L, 2.5 L
086948	HYDROQUANT™-Uniquant 5K	One component reagent for volumetric KF titration of aldehydes and ketones; 1ml = 5.2-5.6mg H_20; used with HYDROQUANT™-Solvequant K.	500 ml, 1l
086748	HYDROQUANT™-Solvequant K	Working medium for volumetric KF titration of aldehydes and ketones; used with HYDROQUANT™ -Uniquant 5K.	500 ml, 1l
087048	HYDROQUANT™-Titraquant 1	General two-component reagent for volumetric KF titration; 1ml = 1.1-1.4mg H_20; used with HYDROQUANT™-Solvequant.	500 ml, 1l
082248	HYDROQUANT™-Titraquant 2	General two-component reagent for volumetric KF titration; 1ml = 2.1-2.4mg H_20; used with HYDROQUANT™-Solvequant.	500 ml, 1l
082448	HYDROQUANT™-Titraquant 5	General two-component reagent for volumetric KF titration; 1ml = 5.2-5.6mg H_20; used with HYDROQUANT™-Solvequant.	500 ml, 1l
082648	HYDROQUANT™-Solvequant	Working medium for general use in volumetric KF titration; used with HYDROQUANT™-Titraquant.	500 ml, 1l
086448	HYDROQUANT™-A	Anolyte for general use in coulometric KF titration. Suitable for cells with and without diaphragm	100 ml, 500 ml
087848	HYDROQUANT™-A Oil	Anolyte for coulometric KF titration in olis Suitable for cells with diaphragm.	100 ml, 500 ml
086548	HYDROQUANT™-C	Catholyte for general use in coulometric KF titration; Suitable for cells with diaphragm.	10x5 ml
086248	HYDROQUANT™-AK	Anolyte for coulometric KF titration of aldehydes & ketones for cells with and without diaphragm.	100 ml, 500 ml
086348	HYDROQUANT™-CK	Catholyte for coulometric KF titration of aldehydes & ketones; Suitable for cells with diaphragm.	10x5 ml
082748	HYDROQUANT™-Acid Buffer	Buffer for pH stabilization of acidic samples titration; Buffer capacity 5 mmol acid/ml.	500 ml, 1L
085148	HYDROQUANT™- Base Buffer	Buffer for pH stabilization of basic samples titration; Buffer capacity 1 mmol base/ml.	500 ml, 1L
090648	HYDROQUANT™- Imidazol	Neutralizing base for strong acidic samples	100g, 1kg
162548	HYDROQUANT™-Pyridine	Neutralizing base for strong acidic samples.	1l, 2.5l
172348	HYDROQUANT™-Salicylic acid	Neutralizing acid for strong basic samples.	100g, 1kg
035848	HYDROQUANT™-Benzoic acid	Neutralizing acid for strong basic samples.	100g, 1kg
012048	HYDROQUANT™-Acetonitrile	Co-solvent for working medium.	1l, 2.5l
030848	HYDROQUANT™-Chloroform	Co-solvent for working medium.	1l, 2.5l
087648	HYDROQUANT™-Formamide	Co-solvent for working medium.	500ml, 1l
162648	HYDROQUANT™-2-Propanol	Co-solvent for working medium.	1l, 2.5l
201548	HYDROQUANT™-Toluene	Co-solvent for working medium.	1l, 2.5l

HYDROQUANT™

Reagents for Water Determination by Karl-Fischer Method

For over three decades our company produces and distributes selected high purity solvents, reagents and formulations for the research, pharmaceutical and biotechnology industries. Biosolve group meet the latest quality and environmental ISO standards, manufacturing under stringent quality control processes and serving you with the highest quality products on the market. Biosolve **HYDROQUANT™** product line covers the whole range of volumetric and coulometric reagents for the determination of water by Karl-Fischer method. **HYDROQUANT™** product line benefit from high titration rates for fast, accurate and reliable analysis results.

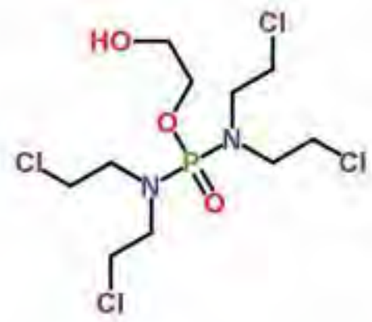
Benefits of HYDROQUANT™ products:

- **Ready-made solution and reagents for Karl-Fischer titration.**
- **Fast, stable and accurate end points.**
- **Buffered systems for controlled pH.**
- **Long term stability & shelf-life.**
- **Suitability test conformed for each manufactured lot.**

2-Hydroxyethyl-N,N,N',N'-tetrakis(2-chloroethyl)phosphorodiamidate

CAS [350501-50-7];

$C_{10}H_{21}Cl_4N_2O_3P$; M 390.07



Cat. No. 309233

2-Hydroxyethyl-N,N,N',N'-tetrakis(2-chloroethyl)phosphorodiamidate

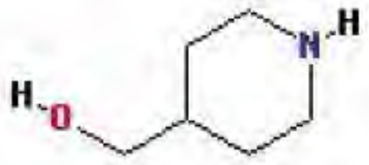
Peptide synthesis

Appearance	**White to off-white powder**
Identity (H^1NMR)	**H1 NMR Corresponds**
Purity (HPLC)	**min. 98%**
Melting point	**76-82°C**

4-(Hydroxymethyl)piperidine

CAS [6457-49-4]; $C_6H_{13}NO$; M 115.17; m.p. 55-59 °C

Danger H:314; P:260-303+361+353-305+351+338-310



Cat. No. 166280

4-(Hydroxymethyl)piperidine

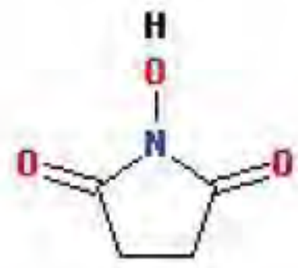
For synthesis

Appearance	**White to cream solid**
Assay (GC, on anhydrous basis)	**min. 98.5%**
Melting point	**56-58°C**

N-Hydroxysuccinimide (HOSu)

Synonym: 1-Hydroxy-2,5-pyrrolidinedione, HOSu

CAS [6066-82-6]; EC 228-001-3; $C_4H_5NO_3$; M 115.09



Cat. No. 308133

N-Hydroxysuccinimide (HOSu)

Peptide synthesis

Appearance	**White to off-white powder**
Identity (H^1NMR)	**H1 NMR Corresponds**
Purity (HPLC)	**min. 98%**
Melting range	**93-98°C**

Imidazole

Synonym: 1,3-Diaza-2,4-cyclopentadiene, Glyoxaline

CAS [288-32-4]; EC 206-019-2; $C_3H_4N_2$; M 68.08

m.p. 86-90 °C; b.p. 255-256 °C; UN 1759,8,III,C10;

Danger H:302-314; P:260-303+361+353-305+351+338-310

Cat. No. 090605

Imidazole

AR

Assay (T)	**99.0-101.0%w/w**	Iron (Fe)	**max. 0.001%**
pH (5% in water)	**9.5-11.0**	Water (KF)	**max. 0.2%w/w**
Residue after ignition	**max. 0.1%**		

1,3-Diaza-2,4-cyclopentadiene, Glyoxaline.

Cat. No. 090648

Imidazole

HYDROQUANT for Karl Fischer analysis

Application: Neutralizing base for strong acidic samples.

Assay (GC, on anhydrous basis)	**min. 99.5%**
Water (KF)	**max. 0.05%w/w**

1,3-Diaza-2,4-cyclopentadiene, Glyoxaline.

Cat. No. 090623

Imidazole

Molecular biology

Appearance	**White crystalline powder**	Water (KF)	**max. 0.2%w/w**
Solubility (0.1M in water)	**Complete, colorless**	A260nm (0.1M)	**max. 0.1AU**
Chloride (Cl)	**max. 0.005%**	A280nm (0.1M)	**max. 0.1AU**
Assay (GC, on anhydrous basis)	**min. 99.5%**	DNase activity	**Not detected**
pH (0.1M in water)	**9.5-11**	RNase activity	**Not detected**
Sulfate (SO_4)	**max. 0.005%**	Protease activity	**Not detected**
Residue after ignition	**max. 0.05%**		

Iodine

CAS [7553-56-2]; EC 231-442-4; I_2; M 253.81

m.p. 113 °C; b.p. 185 °C; UN 2923,8 (6.1),II,CT2;

Warning; H:312-332-400; P:261-280-304+340-312-332

Cat. No. 090105

Iodine

AR

Assay	**99.8-100.2%w/w**	Sulfate (SO_4)	**max. 0.005%**
Chlorine and Bromides	**max. 0.005%**	Non-volatile residue	**max. 0.01%**
Bromides and Chlorides	**max. 0.005%**		

Cat. No. 090103

Iodine

Meets EP/BP spec.

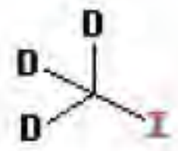
Identification A	**Passes EP/BP test**	Bromides and Chlorides	**max. 0.025%**
Identification B	**Passes EP/BP test**	Assay	**99.5-100.5%w/w**
Appearance	**Greyish-Violet volatile solid**	Non-volatile residue	**max. 0.1%**

Iodomethane-d3, 99.5 atom%D stabilized over Cupper

CAS [865-50-9]; EC 212-744-5; D_3CI; M 144.95

D 2.30; b.p. 42 °C; UN 2644,6.1,I,T1;

Danger H:301-312-315-331-335-351; P:261-280-301+310-405-501



Cat. No. 317595

Iodomethane-d3, 99.5 atom%D stab./Cu

For NMR

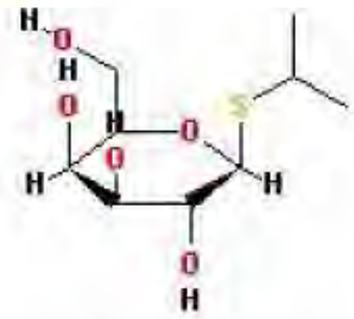
Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.03% H_2O+D_2O**

IPTG

Synonym: *Isopropyl beta-D-1-thiogalactopyranoside*

CAS [367-93-1]; EC 206-703-0; $C_9H_{18}O_5S$; M 238.31

Warning; H:302-312-332; P:261-280-301+312-304+340-322



Cat. No. 162430 ***IPTG*** ***Pharmaceutical***

Description	**IPTG non-animal origin**	Residual solvents	**Dioxane**
Appearance	**White to off-white powder**	Residual solvents	**max. 10ppm**
Identity (IR)	**Conforms with structure**	S.Rotation 20/D (C=1 in Water)	**-33.0--31.0°**
Purity (TLC)	**min. 99.0%**	NMR H1 spectrum	**Conforms with structure**
Assay (HPLC)	**min. 99.0%**	Water (KF)	**max. 1.5%w/w**
Solubility	**Soluble in Water & Methanol**	Heavy metals (as Pb)	**max. 0.0005%**
		pH (5% in water)	**5.0-7.0**
Solubility (5% in Water)	**Clear solution**		

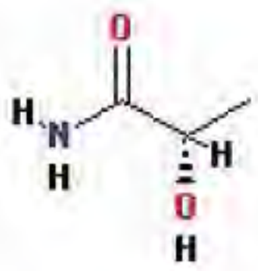
Isopropyl beta-D-1-thiogalactopyranoside.

Cat. No. 162423 ***IPTG*** ***Molecular biology***

Application: Commonly used in cloning procedures that require induction of b-galactosidase activity.

Description	**IPTG non-animal origin**	Water (KF)	**max. 1.0%w/w**
Appearance	**White to off-white powder**	Heavy metals (as Pb)	**max. 0.001%**
Identity (IR)	**Conforms with structure**	DNase activity	**Not detected**
Assay (HPLC)	**min. 99%**	RNase activity	**Not detected**
S.Rotation 20/D (C=1 in Water)	**-33.0--31.0°**	Protease activity	**Not detected**
Solubility (5% in Water)	**Clear solution**		

(S)-(-)-Lactamide



CAS [89673-71-2]; $C_3H_7NO_2$; M 89.09;

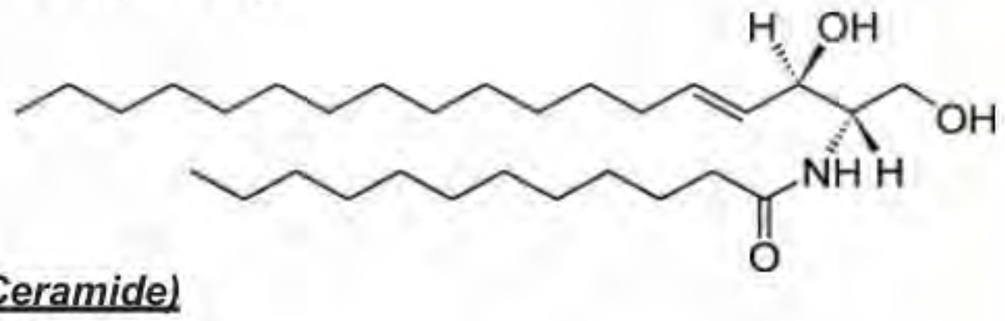
Cat. No. 123080 ***(S)-(-)-Lactamide*** ***For synthesis***

Appearance	**White crystalline powder**	Melting point	**51-55°C**
Assay (GC, on anhydrous basis)	**min. 97.5%**	Water (KF)	**max. 1%w/w**
S.Rotation 20/D (C=10 in Water)	**-21--20°**		

N-Lauroyl-D-erythro-Sphingosine (C12 Ceramide)

Synonym: *C12 Ceramide; N-(dodecanoyl)-sphing-4-enine.*

CAS [74713-60-3]; $C_{30}H_{59}NO_3$; M 481.8;



Cat. No. 039880

N-Lauroyl-D-erythro-Sphingosine (C12 Ceramide)

For synthesis

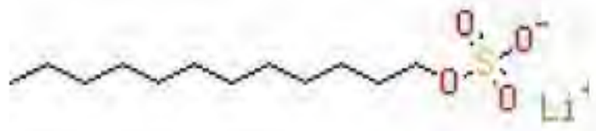
Appearance	**White to off-white solid**	Purity (TLC)	**min. 98%**
Assay (HPLC)	**min. 98%**	NMR H^1 spectrum	**Conforms to structure**

Lithium dodecyl sulfate

Synonym: *Dodecyl lithium sulfate, Dodecyl sulfate lithium salt, Lauryl sulfate lithium salt, Lithium lauryl sulfate*

CAS [2044-56-6]; EC 218-058-2; $CH_3(CH_2)_{11}OSO_3Li$; M 272.33

Warning; H:202-302-315-319; P:280-301+312-305+351+338-321-362



Cat. No. 121623

Lithium dodecyl sulfate

Molecular biology

Appearance	**White to off-white solid**	Copper (Cu)	**max. 0.0005%**
Color (10% in water)	**max. 15**	Heavy metals (as Pb)	**max. 0.001%**
Assay (T, on dry basis)	**98-102%w/w**	A230nm (3% in Water)	**max. 0.2AU**
Assay (Fatty alcohols, C12)	**min. 98%**	A280nm (3% in Water)	**max. 0.1AU**
Loss on drying (105°C)	**max. 1%**		
Chloride (Cl)	**max. 0.01%**		

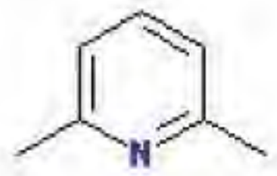
2,6-Lutidine

Synonym: *2,6-Dimethylpyridine*

CAS [108-48-5]; EC 203-587-3; C_7H_9N; M 107.15

D 0.923; m.p. -6 °C; b.p. 143-145 °C; UN 1993,3,III,FT1

Warning; H:226-302; P:210-240-241-280-303+361+353



Cat. No. 125224

2.6-Lutidine

DNA synthesis

Color (APHA)	**max. 15**
Assay (GC, on anhydrous basis)	**min. 99%**
Subs. reducing $KMnO_4$	**Passes test**
Water (KF)	**max. 0.02%w/w**

Cat. No. 125202

2.6-Lutidine

CP

Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 98%**
Water (KF)	**max. 0.1%w/w**

Lysozyme

Synonym: *Mucopeptide N-acetylmuramoylhydrolase, Muramidase*

CAS [12650-88-3]; EC 235-747-3; M ~14,500;

Cat. No. 122223

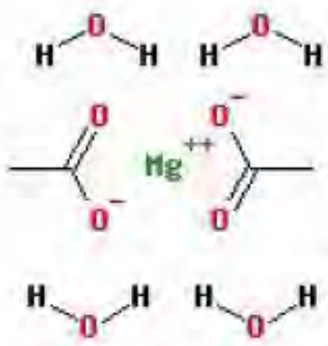
Lysozyme

Molecular biology

Application: Commonly useful for lyzing gram positive and gram negative bacteria prior to subsequent nucleic acid extraction. Hydrolyses the β-1.4 linkage in chitin.

Appearance	**White crystalline powder**	DNase activity	**Not detected**
Source	**Chicken egg white**	RNase activity	**Not detected**
Activity	**25000-45000U/mg mat.**	Protease activity	**Not detected**
Chloride (Cl)	**max. 3.5%**		

Magnesium acetate tetrahydrate



CAS [16674-78-5]; EC 205-554-9; $C_4H_6MgO_4 \times 4H_2O$; M 214.46

Cat. No. 130823

Magnesium acetate tetrahydrate

Molecular biology

Application: Commonly used in the preparation of buffer solutions and is required as a stabilizer in bacteriophage purification.

Appearance	**White crystalline powder**	pH (1M in water)	**7.5-9**
Solubility (1M in water)	**Clear colorless solution**	A260nm (1M)	**max. 0.03AU**
Chloride (Cl)	**max. 0.005%**	A280nm (1M)	**max. 0.02AU**
Assay (on dry basis)	**min. 99%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.001%**	RNase activity	**Not detected**
Sulfate (SO_4)	**max. 0.02%**	Protease activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**		

Magnesium chloride hexahydrate

CAS [7791-18-6]; EC 232-094-6; $Cl_2Mg \times 6H_2O$; M 203.30

Cat. No. 131805

Magnesium chloride hexahydrate

AR

Assay (on dry basis)	**99.0-102.0%**	Ba (Barium)	**max. 0.005%**
Ammonium (NH4)	**max. 0.002%**	Ca (Calcium)	**max. 0.01%**
Heavy metals (as Pb)	**max. 0.0005%**	Mn (Manganese)	**max. 0.0005%**
Nitrate (NO_3)	**max. 0.001%**	K (Potassium)	**max. 0.005%**
Iron (Fe)	**max. 0.0005%**	Na (Sodium)	**max. 0.005%**
Phosphate (PO_4)	**max. 0.0005%**	Sr (Strontium)	**max. 0.005%**
Sulfate (SO_4)	**max. 0.002%**	Water insolubles	**max. 0.005%**

Cat. No. 131823

Magnesium chloride hexahydrate

Molecular biology

Application: Commonly used for optimization of polymerase chain reactions and also as cell culture salt reagent.

Appearance	**Colorless crystals**	Heavy metals (as Pb)	**max. 0.0005%**
Assay (on dry basis)	**99-101%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.0005%**	RNase activity	**Not detected**
Sulfate (SO_4)	**max. 0.01%**	Protease activity	**Not detected**

Cat. No. 131802

Magnesium chloride hexahydrate

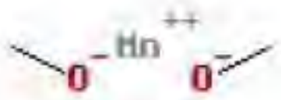
CP

Assay (on dry basis)	**min. 98%**
pH (5% in water)	**5-6.5**

Magnesium methoxide 7-14 wt.%

CAS [109-88-6]; EC 203-715-8; $C_2H_6MgO_2$; M 86.37

Danger H:225-301-311-314-331-370; P:301+310-303+361+353-305+351+338-310-361-405



Cat. No. 131499

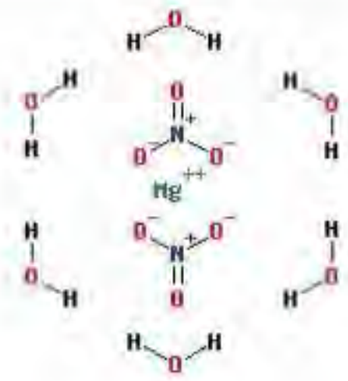
Magnesium methoxide 7-14 wt.%

General reagent

Appearance	**Clear, colorless to yellow sol.**	Identification - Mg	**Positive**
Assay (T)	**7-14%w/w**	Residue of Sediments	**max. 1000mg/L**
Identification - MeOH	**Positive**		

May contain white sediments.

Magnesium nitrate hexahydrate



CAS [13446-18-9]; $MgN_2O_6x6H_2O$; M 256.4; m.p. 89 °C

Cat. No. 134105

Magnesium nitrate hexahydrate

AR

Appearance	**White to off-white solid**	Phosphate (PO_4)	**max. 0.0005%**
Assay (on dry basis)	**98.0-102.0%**	Ba (Barium)	**max. 0.005%**
pH (5% in water)	**5.0-8.2**	Ca (Calcium)	**max. 0.01%**
Water insolubles	**max. 0.005%**	Mn (Manganese)	**max. 0.0005%**
Chloride (Cl)	**max. 0.001%**	K (Potassium)	**max. 0.005%**
Iron (Fe)	**max. 0.0005%**	Na (Sodium)	**max. 0.005%**
Sulfate (SO_4)	**max. 0.005%**	Sr (Strontium)	**max. 0.005%**
Heavy metals (as Pb)	**max. 0.0005%**		

Cat. No. 134102

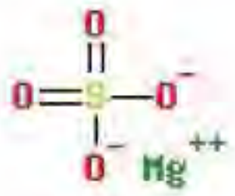
Magnesium nitrate hexahydrate

CP

Appearance	**White to off-white solid**
Assay (on dry basis)	**97.0-103.0%**
Heavy metals (as Pb)	**max. 0.001%**
pH (5% in water)	**5.0-8.2**

Magnesium sulfate anhydrous

CAS [7487-88-9]; EC 231-298-2; MgO_4S; M 120.36



Cat. No. 134205

Magnesium sulfate anhydrous

AR

Appearance	**White to off-white solid**	Ca (Calcium)	**max. 0.02%**
Assay (on dry basis)	**98.0-102.0%**	Mn (Manganese)	**max. 0.002%**
pH (5% in water)	**5-8.2**	K (Potassium)	**max. 0.005%**
Water insolubles	**max. 0.005%**	Na (Sodium)	**max. 0.01%**
Chloride (Cl)	**max. 0.02%**	Sr (Strontium)	**max. 0.005%**
Heavy metals (as Pb)	**max. 0.001%**	Loss on drying (400°C)	**max. 13%**
Iron (Fe)	**max. 0.001%**		

Cat. No. 134202

Magnesium sulfate anhydrous

CP

Appearance	**White to off-white solid**	Heavy metals (as Pb)	**max. 0.002%**
Assay (on dry basis)	**97.0-103.0%**	Iron (Fe)	**max. 0.002%**
pH (5% in water)	**5.0-8.5**	Loss on drying (400°C)	**max. 25%**

Magnesium sulfate heptahydrate

CAS [10034-99-8]; EC 231-298-2; MgO_4Sx7H_2O; M 246.48

Cat. No. 131905

Magnesium sulfate heptahydrate

AR

Appearance	**White to almost-white solid**	Ca (Calcium)	**max. 0.02%**
		Mn (Manganese)	**max. 0.0005%**
Assay (on dry basis)	**98.0-102.0%**	K (Potassium)	**max. 0.005%**
pH (5% in water)	**5.0-8.2**	Na (Sodium)	**max. 0.005%**
Water insolubles	**max. 0.005%**	Sr (Strontium)	**max. 0.005%**
Chloride (Cl)	**max. 0.0005%**	Loss on drying (400°C)	**48-52%**
Heavy metals (as Pb)	**max. 0.0005%**		
Iron (Fe)	**max. 0.0005%**		

Cat. No. 131903

Magnesium sulfate heptahydrate

Meets EP/BP spec.

Appearance	**White to almost-white solid**	Chloride (Cl)	**max. 0.03%**
		Arsenic (As)	**max. 0.0002%**
Identification A	**Passes EP/BP test**	Iron (Fe)	**max. 0.002%**
Identification B	**Passes EP/BP test**	Heavy metals (as Pb)	**max. 0.001%**
Appearance of solution	**Solution S is clear & colorless**	Loss on drying (400°C)	**48.0-52.0%**
Acidity or Alkalinity	**Passes EP/BP test**		
Assay (on dry basis)	**99.0-100.5%**		

Cat. No. 131923

Magnesium sulfate heptahydrate

Molecular biology

Appearance	**White powder**	A260nm (1M)	**max. 0.01AU**
Assay (on dry basis)	**min. 99.5%**	A280nm (1M)	**max. 0.01AU**
Iron (Fe)	**max. 0.001%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
pH (5% in water)	**5-9.2**	Protease activity	**Not detected**

Cat. No. 131902

Magnesium sulfate heptahydrate

CP

Appearance	**White to almost-white solid**	Chloride (Cl)	**max. 0.03%**
Assay (on dry basis)	**97.0-103.0%**	Heavy metals (as Pb)	**max. 0.002%**
Water insolubles	**max. 0.01%**	Iron (Fe)	**max. 0.002%**
pH (5% in water)	**5.0-8.2**	Loss on drying (400°C)	**40-60%**

2'-OMe-A(Bz)-CE Phosphoramidite

$C_{48}H_{54}N_7O_8P$; M 887.97;

Cat. No. 179124

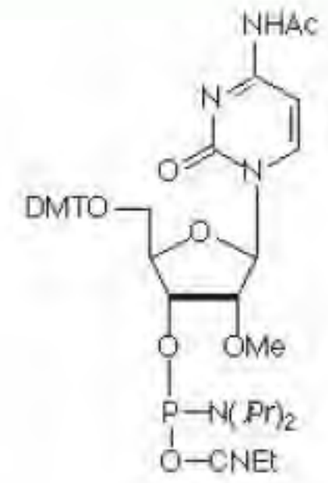
2'-OMe-A(Bz)-CE Phosphoramidite

DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

2'-OMe-C(Ac)-CE Phosphoramidite

$C_{42}H_{52}N_5O_9P$; M 801.88;



Cat. No. 179324

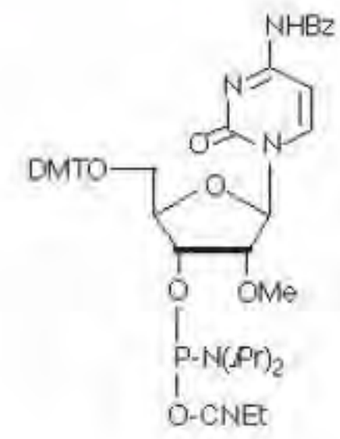
2'-OMe-C(Ac)-CE Phosphoramidite

DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

2'-OMe-C(Bz)-CE Phosphoramidite

$C_{47}H_{54}N_5O_9P$; M 863.95;



Cat. No. 179224

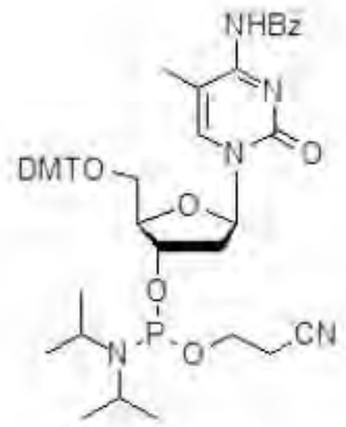
2'-OMe-C(Bz)-CE Phosphoramidite

DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

5-Me-dC-CE Phosphoramidite

$C_{47}H_{64}N_5O_8P$; M 847.93;



Cat. No. 170824

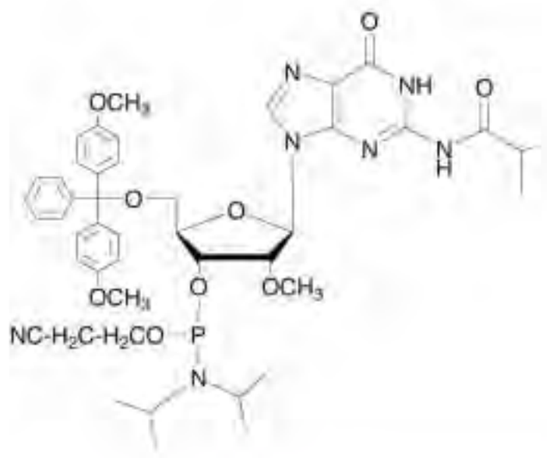
5-Me-dC-CE Phosphoramidite

DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

2'-OMe-G(iBu)-CE Phosphoramidite

$C_{48}H_{56}N_7O_9P$; M 869.94;



Cat. No. 179424

2'-OMe-G(iBu)-CE Phosphoramidite

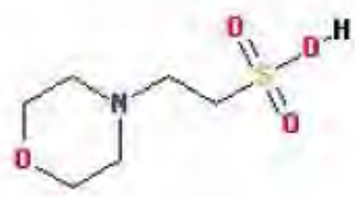
DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

MES free acid anhydrous

Synonym: *2-(N-Morpholino)ethanesulfonic acid, 4-Morpholineethanesulfonic acid*

CAS [4432-31-9]; EC 224-632-3; $C_6H_{13}NO_4S$; M 195.25



Cat. No. 133623

MES free acid anhydrous

Molecular biology

Application: Useful pH range 5.5 - 6.7; pKa =6.1 at 25°C.

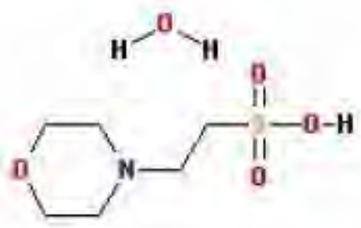
Appearance	**White powder**	pH (10% in Water)	**2.5-4.0**
Solubility (10% in Water)	**Complete, clear**	Sulfate (SO4)	**max. 0.05%**
Loss on drying (105°C)	**max. 2%**	Assay (T)	**min. 99%w/w**
Heavy metals (as Pb)	**max. 0.0015%**		
2-(N-Morpholino)ethanesulfonic acid,			

MES free acid monohydrate

Synonym: *2-(N-Morpholino)ethanesulfonic acid hydrate, 4-Morpholineethanesulfonic acid*

CAS [145224-94-8]; EC 224-632-3; $C_6H_{13}NO_4SH_2O$; M 213.25

Warning; H:315-319-335; P:261-280-305+351+338-405-501



Specification continues on the next page

Cat. No. 130623

MES free acid monohydrate

Molecular biology

Application: Useful pH range 5.5 - 6.7; pKa =6.1 at 25°C.

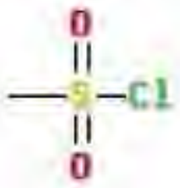
Appearance	**White crystalline powder**	Sulfate (SO_4)	**max. 0.05%**
Solubility (10% in Water)	**Clear, colorless solution**	Assay (T)	**min. 99%w/w**
Chloride (Cl)	**max. 0.01%**	DNase activity	**Not detected**
Loss on drying (105°C)	**2-9.5%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0015%**	Protease activity	**Not detected**
pH (10% in Water)	**2.5-4**		

Methanesulfonyl chloride

Synonym: *Mesyl chloride*

CAS [124-63-0]; EC 204-706-1; CH_3ClO_2S; M 114.55

D 1.478; m.p. -32 °C; b.p. 161 °C; UN 3246,6.1 (8),I,TC1



Danger H:300-310-314-335-412; P:260-301+310-303+361+353-305+351+338-405-501

Cat. No. 300880

Methanesulfonyl chloride

For synthesis

Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 99%**

Methanol absolute

Synonym: *Methyl alcohol*

CAS [67-56-1]; EC 200-659-6; CH_4O; M 32.04

D 0.791; m.p. -98 °C; b.p. 64.7 °C; UN 1230,3+6.1,II,FT1

Danger H:225-301-311-331-370; P:210-241-301+310-303+361+353-405-501

Cat. No. 136841

Methanol absolute

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	Ba (Barium)	**max. 50ppb**
Color (APHA)	**max. 5**	Bi (Bismuth)	**max. 50ppb**
Assay (GC, on anhydrous basis)	**min. 99.98%**	Ca (Calcium)	**max. 50ppb**
Residue after evaporation	**max. 0.0001%w/w**	Cd (Cadmium)	**max. 50ppb**
Water (KF)	**max. 0.03%w/w**	Co (Cobalt)	**max. 20ppb**
Acidity (as Acetic acid)	**max. 0.002%**	Cr (Chromium)	**max. 20ppb**
Alkalinity (as Ammonia)	**max. 0.0001%**	Cu (Copper)	**max. 20ppb**
MS-ESI+ (as Reserpine)	**max. 6ppb**	Fe (Iron)	**max. 20ppb**
H.Peak by PDAD 220-400nm	**max. 0.004AU**	K (Potassium)	**max. 50ppb**
Grad. elution H.Peak at 220nm	**max. 0.004AU**	Li (Lithium)	**max. 50ppb**
Grad. elution drift at 220nm	**max. 0.05AU**	Mg (Magnesium)	**max. 20ppb**
Grad. elution H.Peak at 235nm	**max. 0.002AU**	Mn (Manganese)	**max. 20ppb**
Grad. elution drift at 235nm	**max. 0.015AU**	Mo (Molybdenum)	**max. 50ppb**
F254nm (as Quinine)	**max. 0.5ppb**	Na (Sodium)	**max. 50ppb**
F365nm (as Quinine)	**max. 0.3ppb**	Ni (Nickel)	**max. 20ppb**
T210nm	**min. 40%**	Pb (lead)	**max. 20ppb**
T220nm	**min. 65%**	Sn (Tin)	**max. 50ppb**
T230nm	**min. 80%**	Sr (Strontium)	**max. 50ppb**
T260nm	**min. 98%**	Zn (Zinc)	**max. 50ppb**
Ag (Silver)	**max. 50ppb**		
Al (Aluminum)	**max. 20ppb**		

Filtered through 0.1µm, filled under inert gas.

Cat. No. 136878

Methanol absolute

LC-MS

Appearance	**Clear colorless liquid**	Bi (Bismuth)	**max. 0.1ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Ca (Calcium)	**max. 0.05ppm**
Alkalinity (as Ammonia)	**max. 0.0002%**	Cd (Cadmium)	**max. 0.05ppm**
Color (APHA)	**max. 5**	Co (Cobalt)	**max. 0.05ppm**
Assay (GC, on anhydrous basis)	**min. 99.95%**	Cr (Chromium)	**max. 0.02ppm**
Grad. elution H.Peak at 235nm	**max. 0.002AU**	Cu (Copper)	**max. 0.02ppm**
Grad. elution H.Peak at 254nm	**max. 0.001AU**	Fe (Iron)	**max. 0.02ppm**
Residue after evaporation	**max. 0.0003%w/w**	K (Potassium)	**max. 0.05ppm**
Water (KF)	**max. 0.03%w/w**	Li (Lithium)	**max. 0.1ppm**
T210nm	**min. 40%**	Mg (Magnesium)	**max. 0.05ppm**
T220nm	**min. 60%**	Mn (Manganese)	**max. 0.02ppm**
T235nm	**min. 85%**	Mo (Molybdenum)	**max. 0.05ppm**
T260nm	**min. 98%**	Na (Sodium)	**max. 0.05ppm**
MS-ESI+ (as Reserpine)	**max. 25ppb**	Ni (Nickel)	**max. 0.02ppm**
Ag (Silver)	**max. 0.1ppm**	Pb (Lead)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.05ppm**	Sn (Tin)	**max. 0.05ppm**
Ba (Barium)	**max. 0.1ppm**	Sr (Strontium)	**max. 0.05ppm**
		Zn (Zinc)	**max. 0.1ppm**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 136835

Methanol absolute

HPLC Supra-gradient (Reag. EP/BP/USP)

Appearance	**Clear colorless liquid**	Bi (Bismuth)	**max. 0.1ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Ca (Calcium)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Cd (Cadmium)	**max. 0.05ppm**
F254nm (as Quinine)	**max. 1ppb**	Co (Cobalt)	**max. 0.1ppm**
F365nm (as Quinine)	**max. 0.5ppb**	Cr (Chromium)	**max. 0.05ppm**
Assay (GC, on anhydrous basis)	**min. 99.95%**	Cu (Copper)	**max. 0.05ppm**
Grad. elution H.Peak at 235nm	**max. 0.002AU**	Fe (Iron)	**max. 0.02ppm**
Grad. elution H.Peak at 254nm	**max. 0.001AU**	K (Potassium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0002%w/w**	Li (Lithium)	**max. 0.1ppm**
Water (KF)	**max. 0.03%w/w**	Mg (Magnesium)	**max. 0.05ppm**
T210nm	**min. 40%**	Mn (Manganese)	**max. 0.05ppm**
T220nm	**min. 60%**	Mo (Molybdenum)	**max. 0.05ppm**
T230nm	**min. 78%**	Na (Sodium)	**max. 0.1ppm**
T235nm	**min. 85%**	Ni (Nickel)	**max. 0.02ppm**
T250nm	**min. 95%**	Pb (Lead)	**max. 0.05ppm**
T260nm	**min. 98%**	Sn (Tin)	**max. 0.05ppm**
A225nm	**max. 0.17AU**	Sr (Strontium)	**max. 0.05ppm**
Ag (Silver)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Al (Aluminum)	**max. 0.05ppm**		
Ba (Barium)	**max. 0.1ppm**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 136806

Methanol absolute

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.05%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T210nm	**min. 30%**
Color (APHA)	**max. 10**	T235nm	**min. 85%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T260nm	**min. 98%**
Grad. elution H.Peak at 254nm	**max. 0.002AU**		
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 136816

Methanol absolute

HPLC Preparative

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.1%w/w**
Color (APHA)	**max. 10**	T220nm	**min. 50%**
Acidity (as Acetic acid)	**max. 0.002%**	T235nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T260nm	**min. 95%**
Residue after evaporation	**max. 0.0005%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 136838

Methanol absolute

Spectrofluopure

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.05%w/w**
Color (APHA)	**max. 10**	T210nm	**min. 35%**
F254nm (as Quinine)	**max. 0.5ppb**	T235nm	**min. 85%**
F365nm (as Quinine)	**max. 0.5ppb**	T260nm	**min. 98%**
Assay (GC, on anhydrous basis)	**min. 99.9%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 136828

Methanol absolute

Purge & Trap

Appearance	**Clear colorless liquid**	Each Aromatic (as Toluene)	**max. 50ng/ml**
Acidity (as Acetic acid)	**max. 0.002%**	2-Butanone	**max. 100ng/ml**
Alkalinity (as Ammonia)	**max. 0.001%**	Each other Ketone (as Acetone)	**max. 50ng/ml**
Color (APHA)	**max. 10**	Each Chlorohydrocarbon (as DCM)	**max. 100ng/ml**
Assay (GC, on anhydrous basis)	**min. 99.99%**	Each Alkane (as n-Hexane)	**max. 50ng/ml**
Residue after evaporation	**max. 0.0001%w/w**	Other detectable peak (as Iso-Octane)	**max. 50ng/ml**
Water (KF)	**max. 0.03%w/w**	Identity (IR)	**Conforms to structure**
Volatile impurities	**Passes test**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 136884

Methanol absolute

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	PAH test (<2ppb by HPLC)	**Passes test**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.0002%w/w**
Alkalinity (as Ammonia)	**max. 0.0002%**	Water (KF)	**max. 0.05%w/w**
Color (APHA)	**max. 10**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F254nm (as Quinine)	**max. 0.5ppb**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
F365nm (as Quinine)	**max. 0.5ppb**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	T210nm	**min. 40%**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**		

Cat. No. 136860

Methanol absolute

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.1%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Color (APHA)	**max. 10**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 99.9%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Cat. No. 136826

Methanol absolute

Pesti-S

Appearance	**Clear colorless liquid**
Acidity (as Acetic acid)	**max. 0.003%**
Color (APHA)	**max. 10**
Assay (GC, on anhydrous basis)	**min. 99.8%**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Residue after evaporation	**max. 0.0005%w/w**
Water (KF)	**max. 0.1%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 136843

Methanol absolute

XLSI

Assay (GC, on anhydrous basis)	**min. 99.9%**	Fe (Iron)	**max. 0.1ppb**
Color (APHA)	**max. 10**	Ga (Gallium)	**max. 0.1ppb**
Acidity	**max. 0.2meq/gr**	Ge (Germanium)	**max. 0.1ppb**
Alkalinity	**max. 0.1meq/gr**	K (Potassium)	**max. 0.1ppb**
Chloride (Cl)	**max. 0.05ppm**	Li (Lithium)	**max. 0.1ppb**
Nitrate (NO_3)	**max. 0.05ppm**	Mg (Magnesium)	**max. 0.1ppb**
Phosphate (PO_4)	**max. 0.05ppm**	Mn (Manganese)	**max. 0.1ppb**
Sulfate (SO_4)	**max. 0.05ppm**	Mo (Molybdenum)	**max. 0.1ppb**
Water (KF)	**max. 0.03%w/w**	Na (Sodium)	**max. 0.3ppb**
Residue after evaporation	**max. 0.00005%w/w**	No (Nobelium)	**max. 0.1ppb**
Ag (Silver)	**max. 0.1ppb**	Ni (Nickel)	**max. 0.1ppb**
Al (Aluminum)	**max. 0.1ppb**	Pb (lead)	**max. 0.1ppb**
As (Arsenic)	**max. 0.1ppb**	Sb (Antimony)	**max. 0.1ppb**
Au (Gold)	**max. 0.1ppb**	Sn (Tin)	**max. 0.1ppb**
B (Boron)	**max. 0.1ppb**	Sr (Strontium)	**max. 0.1ppb**
Ba (Barium)	**max. 0.1ppb**	Ta (Tantalum)	**max. 0.1ppb**
Be (Beryllium)	**max. 0.1ppb**	Th (Thorium)	**max. 0.1ppb**
Bi (Bismuth)	**max. 0.1ppb**	Ti (Titanium)	**max. 0.1ppb**
Ca (Calcium)	**max. 0.3ppb**	Tl (Thallium)	**max. 0.1ppb**
Cd (Cadmium)	**max. 0.1ppb**	V (Vanadium)	**max. 0.1ppb**
Co (Cobalt)	**max. 0.1ppb**	Zn (Zinc)	**max. 0.1ppb**
Cr (Chromium)	**max. 0.1ppb**	Zr (Zirconium)	**max. 0.1ppb**
Cu (Copper)	**max. 0.1ppb**	Particle count > 0.5µm	**max. 30P/ml**

Cat. No. 136842

Methanol absolute

SLSI

Assay (GC, on anhydrous basis)	**min. 99.9%**	Fe (Iron)	**max. 1ppb**
Color (APHA)	**max. 10**	Ga (Gallium)	**max. 1ppb**
Acidity	**max. 0.2meq/gr**	Ge (Germanium)	**max. 1ppb**
Alkalinity	**max. 0.1meq/gr**	K (Potassium)	**max. 1ppb**
Chloride (Cl)	**max. 0.05ppm**	Li (Lithium)	**max. 1ppb**
Nitrate (NO_3)	**max. 0.05ppm**	Mg (Magnesium)	**max. 1ppb**
Phosphate (PO_4)	**max. 0.05ppm**	Mn (Manganese)	**max. 1ppb**
Sulfate (SO_4)	**max. 0.05ppm**	Mo (Molybdenum)	**max. 1ppb**
Water (KF)	**max. 0.03%w/w**	Na (Sodium)	**max. 3ppb**
Residue after evaporation	**max. 0.00005%w/w**	No (Nobelium)	**max. 1ppb**
Ag (Silver)	**max. 1ppb**	Ni (Nickel)	**max. 1ppb**
Al (Aluminum)	**max. 1ppb**	Pb (lead)	**max. 1ppb**
As (Arsenic)	**max. 1ppb**	Sb (Antimony)	**max. 1ppb**
Au (Gold)	**max. 1ppb**	Sn (Tin)	**max. 1ppb**
B (Boron)	**max. 1ppb**	Sr (Strontium)	**max. 1ppb**
Ba (Barium)	**max. 1ppb**	Ta (Tantalum)	**max. 1ppb**
Be (Beryllium)	**max. 1ppb**	Th (Thorium)	**max. 1ppb**
Bi (Bismuth)	**max. 1ppb**	Ti (Titanium)	**max. 1ppb**
Ca (Calcium)	**max. 3ppb**	Tl (Thallium)	**max. 1ppb**
Cd (Cadmium)	**max. 1ppb**	V (Vanadium)	**max. 1ppb**
Co (Cobalt)	**max. 1ppb**	Zn (Zinc)	**max. 1ppb**
Cr (Chromium)	**max. 1ppb**	Zr (Zirconium)	**max. 1ppb**
Cu (Copper)	**max. 1ppb**	Particle count > 0.5µm	**max. 30P/ml**

Cat. No. 136849

Methanol absolute

ULSI

Color (APHA)	**max. 10**	Cu (Copper)	**max. 10ppb**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Fe (Iron)	**max. 5ppb**
Water (KF)	**max. 0.05%w/w**	Ga (Gallium)	**max. 10ppb**
Acidity	**max. 0.0005meq/gr**	Ge (Germanium)	**max. 10ppb**
Alkalinity	**max. 0.0001meq/gr**	K (Potassium)	**max. 10ppb**
Density (20/4°C)	**0.78-0.80gr/ml**	Li (Lithium)	**max. 10ppb**
Residue after evaporation	**max. 0.0005%w/w**	Mg (Magnesium)	**max. 10ppb**
Chloride (Cl)	**max. 0.2ppm**	Mn (Manganese)	**max. 10ppb**
Nitrate (NO_3)	**max. 0.1ppm**	Mo (Molybdenum)	**max. 10ppb**
Sulfate (SO_4)	**max. 0.5ppm**	Na (Sodium)	**max. 10ppb**
Ag (Silver)	**max. 5ppb**	Ni (Nickel)	**max. 10ppb**
Al (Aluminum)	**max. 10ppb**	Pb (lead)	**max. 10ppb**
As (Arsenic)	**max. 10ppb**	Sb (Antimony)	**max. 10ppb**
Au (Gold)	**max. 10ppb**	Sn (Tin)	**max. 10ppb**
B (Boron)	**max. 10ppb**	Sr (Strontium)	**max. 10ppb**
Ba (Barium)	**max. 10ppb**	Ta (Tantalum)	**max. 10ppb**
Be (Beryllium)	**max. 10ppb**	Ti (Titanium)	**max. 10ppb**
Bi (Bismuth)	**max. 10ppb**	Tl (Thallium)	**max. 10ppb**
Ca (Calcium)	**max. 10ppb**	V (Vanadium)	**max. 10ppb**
Cd (Cadmium)	**max. 10ppb**	Zn (Zinc)	**max. 10ppb**
Co (Cobalt)	**max. 10ppb**	Zr (Zirconium)	**max. 10ppb**
Cr (Chromium)	**max. 10ppb**	Particle count > 0.5µm	**max. 100P/ml**

Cat. No. 136876

Methanol absolute

VLSI

Color (APHA)	**max. 10**	Fe (Iron)	**max. 20ppb**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Ga (Gallium)	**max. 20ppb**
Residue after evaporation	**max. 0.0003%w/w**	Ge (Germanium)	**max. 20ppb**
Water (KF)	**max. 0.05%w/w**	K (Potassium)	**max. 30ppb**
Acidity (as Acetic acid)	**max. 0.002%**	Li (Lithium)	**max. 20ppb**
Alkalinity (as Ammonia)	**max. 0.0002%**	Mg (Magnesium)	**max. 20ppb**
Chloride (Cl)	**max. 0.2ppm**	Mn (Manganese)	**max. 10ppb**
Phosphate (PO_4)	**max. 0.3ppm**	Mo (Molybdenum)	**max. 20ppb**
Sulfate (SO_4)	**max. 0.5ppm**	Na (Sodium)	**max. 30ppb**
Ag (Silver)	**max. 10ppb**	Ni (Nickel)	**max. 10ppb**
Al (Aluminum)	**max. 20ppb**	Pb (lead)	**max. 20ppb**
As (Arsenic)	**max. 10ppb**	Sb (Antimony)	**max. 10ppb**
Au (Gold)	**max. 10ppb**	Si (Silicon)	**max. 20ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 20ppb**
Ba (Barium)	**max. 10ppb**	Sr (Strontium)	**max. 20ppb**
Be (Beryllium)	**max. 10ppb**	Ti (Titanium)	**max. 20ppb**
Ca (Calcium)	**max. 30ppb**	V (Vanadium)	**max. 20ppb**
Cd (Cadmium)	**max. 10ppb**	Zn (Zinc)	**max. 30ppb**
Co (Cobalt)	**max. 10ppb**	Zr (Zirconium)	**max. 30ppb**
Cr (Chromium)	**max. 10ppb**	Particle count > 0.5µm	**max. 100P/ml**
Cu (Copper)	**max. 10ppb**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 136810

Methanol absolute

MOS

Color (APHA)	**max. 10**	Cu (Copper)	**max. 10ppb**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Fe (Iron)	**max. 30ppb**
Residue after evaporation	**max. 0.0003%w/w**	Ga (Gallium)	**max. 50ppb**
Water (KF)	**max. 0.05%w/w**	Ge (Germanium)	**max. 50ppb**
Acidity (as Acetic acid)	**max. 0.002%**	K (Potassium)	**max. 50ppb**
Alkalinity (as Ammonia)	**max. 0.0002%**	Li (Lithium)	**max. 30ppb**
Chloride (Cl)	**max. 0.2ppm**	Mg (Magnesium)	**max. 50ppb**
Phosphate (PO_4)	**max. 0.3ppm**	Mn (Manganese)	**max. 10ppb**
Sulfate (SO_4)	**max. 0.5ppm**	Mo (Molybdenum)	**max. 50ppb**
Dilution test	**Passes test**	Na (Sodium)	**max. 50ppb**
Ag (Silver)	**max. 20ppb**	Ni (Nickel)	**max. 10ppb**
Al (Aluminum)	**max. 20ppb**	Pb (lead)	**max. 30ppb**
As (Arsenic)	**max. 10ppb**	Sb (Antimony)	**max. 10ppb**
Au (Gold)	**max. 20ppb**	Si (Silicon)	**max. 50ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 30ppb**
Ba (Barium)	**max. 20ppb**	Sr (Strontium)	**max. 10ppb**
Be (Beryllium)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Ca (Calcium)	**max. 50ppb**	V (Vanadium)	**max. 50ppb**
Cd (Cadmium)	**max. 20ppb**	Zn (Zinc)	**max. 50ppb**
Co (Cobalt)	**max. 20ppb**	Zr (Zirconium)	**max. 50ppb**
Cr (Chromium)	**max. 20ppb**	Particle count > 0.5µm	**max. 100P/ml**

Filtered through 0.2µm.

Cat. No. 136805

Methanol absolute

AR

Appearance	**Clear colorless liquid**	Subs. reducing $KMnO_4$	**Passes ACS test**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Acetone	**max. 0.001%**
Color (APHA)	**max. 5**	Acetaldehyde	**max. 0.001%**
Acidity (as Acetic acid)	**max. 0.002%**	Formaldehyde	**max. 0.001%**
Iron (Fe)	**max. 0.00005%**	Solubility in Water	**Passes ACS test**
Heavy metals (as Pb)	**max. 0.0001%**	Water (KF)	**max. 0.05%w/w**
Subs. darkened by Sulfuric Acid	**Passes ACS test**	Residue after evaporation	**max. 0.0003%w/w**

Cat. No. 136851

Methanol absolute

AR-S glass distilled

Appearance	**Clear colorless liquid**	Ca (Calcium)	**max. 0.5ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Cd (Cadmium)	**max. 0.05ppm**
Color (APHA)	**max. 5**	Co (Cobalt)	**max. 0.02ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Cr (Chromium)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Cu (Copper)	**max. 0.02ppm**
Residue after evaporation	**max. 0.0002%w/w**	Fe (Iron)	**max. 0.1ppm**
Subs. reducing $KMnO_4$	**Passes test**	Mg (Magnesium)	**max. 0.1ppm**
Acetone	**max. 0.001%**	Mn (Manganese)	**max. 0.02ppm**
Water (KF)	**max. 0.05%w/w**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 136814

Methanol absolute

AR Extra dry

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.8%**
Acidity (as Acetic acid)	**max. 0.003%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 5**	Subs. reducing $KMnO_4$	**Passes test**
Subs. darkened by Sulfuric Acid	**Passes test**	Water (KF)	**max. 0.02%w/w**

Cat. No. 136864

Methanol absolute

Meets ACS/EP/BP/USP spec.

Identification A	**Passes EP/BP test**	Ethanol	**max. 0.01%**
Identification B	**Passes EP/BP test**	Disregard limit (GC)	**max. 0.005%**
Identification C	**IR Spectrum complies**	Carbonisable substances	**Passes USP test**
Appearance	**Clear colorless liquid**	Organic volatile impurities	**Meets the requirements**
Acidity or Alkalinity	**Passes EP/BP/USP tests**	Oxidisable substances	**Passes USP test**
Relative density (20°C)	**0.791-0.793**	Acetone and aldehydes	**Passes USP test**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Cr (Chromium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Cu (Copper)	**max. 0.1ppm**
Refractive index (20/D)	**1.328-1.330**	Fe (Iron)	**max. 0.1ppm**
Water (KF)	**max. 0.1%w/w**	Ir (Iridium)	**max. 0.1ppm**
Benzene	**max. 0.0002%v/v**	Mn (Manganese)	**max. 0.1ppm**
Any impurity	**max. 0.1%**	Mo (Molybdenum)	**max. 0.1ppm**
Total impurities	**max. 0.3%**	Ni (Nickel)	**max. 0.1ppm**
Reducing substances	**Passes EP/BP test**	Os (Osmium)	**max. 0.1ppm**
A230nm	**max. 0.15AU**	Pd (Palladium)	**max. 0.1ppm**
A250nm	**max. 0.05AU**	Pt (Platinum)	**max. 0.1ppm**
A270nm	**max. 0.02AU**	Rh (Rhodium)	**max. 0.1ppm**
A290nm	**max. 0.01AU**	Ru (Ruthenium)	**max. 0.1ppm**
Absorbance curve	**Smooth, at 230-290nm**	V (Vanadium)	**max. 0.1ppm**
Acetone	**max. 0.01%**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 136803

Methanol absolute

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Acetone	**max. 0.01%**
Identification B	**Passes EP/BP test**	Ethanol	**max. 0.05%**
Appearance	**Clear colorless liquid**	Disregard limit (GC)	**max. 0.005%**
Acidity or Alkalinity	**Passes EP/BP test**	Cr (Chromium)	**max. 0.1ppm**
Relative density (20°C)	**0.791-0.793**	Cu (Copper)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Ir (Iridium)	**max. 0.1ppm**
Refractive index (20/D)	**1.328-1.330**	Mn (Manganese)	**max. 0.1ppm**
Water (KF)	**max. 0.10%w/w**	Mo (Molybdenum)	**max. 0.1ppm**
Benzene	**max. 0.0002%v/v**	Ni (Nickel)	**max. 0.1ppm**
Any impurity	**max. 0.1%**	Os (Osmium)	**max. 0.1ppm**
Total impurities	**max. 0.2%**	Pd (Palladium)	**max. 0.1ppm**
Reducing substances	**Passes EP/BP test**	Pt (Platinum)	**max. 0.1ppm**
A230nm	**max. 0.15AU**	Rh (Rhodium)	**max. 0.1ppm**
A250nm	**max. 0.05AU**	Ru (Ruthenium)	**max. 0.1ppm**
A270nm	**max. 0.02AU**	V (Vanadium)	**max. 0.1ppm**
A290nm	**max. 0.01AU**	Zn (Zinc)	**max. 0.1ppm**
Absorbance curve	**Smooth, at 230-290nm**		

Cat. No. 136836

Methanol absolute

Meets USP spec.

Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 0.1ppm**
Alkalinity (as Ammonia)	**max. 0.0003%**	Ir (Iridium)	**max. 0.1ppm**
Acidity	**Passes USP test**	Mn (Manganese)	**max. 0.1ppm**
Carbonisable substances	**Passes USP test**	Mo (Molybdenum)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Ni (Nickel)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Os (Osmium)	**max. 0.1ppm**
Organic volatile impurities	**Meets the requirements**	Pd (Palladium)	**max. 0.1ppm**
Water (KF)	**max. 0.1%w/w**	Pt (Platinum)	**max. 0.1ppm**
Oxidisable substances	**Passes USP test**	Rh (Rhodium)	**max. 0.1ppm**
Identity (IR)	**Conforms to standard**	Ru (Ruthenium)	**max. 0.1ppm**
Acetone and aldehydes	**Passes USP test**	V (Vanadium)	**max. 0.1ppm**
Cr (Chromium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Cu (Copper)	**max. 0.1ppm**		

Cat. No. 136804

Methanol absolute

FCC / Food grade

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as HCOOH)	**max. 0.0015%**	Subs. reducing $KMnO_4$	**Passes FCC test**
Alkalinity (as Ammonia)	**max. 0.0003%**	Water (KF)	**max. 0.1%w/w**
Color (APHA)	**max. 10**	As (Arsenic)	**max. 3ppm**
Aldehydes & Ketones (as C3H6O)	**max. 0.003%**	Cd (Cadmium)	**max. 1ppm**
		Hg (Mercury)	**max. 1ppm**
Assay (GC, on anhydrous basis)	**min. 99.85%**	Pb (Lead)	**max. 1ppm**
Carbonisable substances	**Passes FCC test**	Distillation range	**Passes FCC test**
Solubility (25% in Water)	**Clear colorless solution**		

Cat. No. 136848

Methanol absolute

HYDROQUANT for Karl Fischer analysis

Assay (GC, on anhydrous basis)	**min. 99.9%**
Color (APHA)	**max. 10**
Residue after evaporation	**max. 0.001%w/w**
Water (KF)	**max. 0.005%w/w**

Cat. No. 136847

Methanol absolute

Extra dry

Application: Suitable working medium for general use in volumetric Karl-Fischer titration;

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.005%w/w**
Color (APHA)	**max. 10**	Subs. darkened by Sulfuric Acid	**Passes ACS test**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Subs. reducing $KMnO_4$	**Passes ACS test**

Cat. No. 136853

Methanol absolute

Extra dry / M. sieves

Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**		
Residue after evaporation	**max. 0.001%w/w**		

Cat. No. 136833

Methanol absolute

Peptide synthesis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	Sulfate (SO_4)	**max. 0.0001%**
Color (APHA)	**max. 5**	Water (KF)	**max. 0.01%w/w**
Chloride (Cl)	**max. 0.0001%**	Fe (Iron)	**max. 0.1ppm**
Aldehydes	**max. 0.001%**	Mg (Magnesium)	**max. 0.1ppm**
Free Amines (Kaiser)	**max. 0.001%**	Pb (Lead)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 136823

Methanol absolute

Molecular biology

Appearance	**Clear colorless liquid**	T210nm	**min. 30%**
Color (APHA)	**max. 10**	T235nm	**min. 85%**
Assay (GC, on anhydrous basis)	**min. 99.93%**	T260nm	**min. 98%**
Acidity (as Acetic acid)	**max. 0.003%**	DNase activity	**Not detected**
Subs. darkened by Sulfuric Acid	**Passes ACS test**	RNase activity	**Not detected**
Subs. reducing $KMnO_4$	**Passes ACS test**	Protease activity	**Not detected**
Copper (Cu)	**max. 0.0001%**	Water (KF)	**max. 0.05%w/w**
Heavy metals (as Pb)	**max. 0.0001%**	Residue after evaporation	**max. 0.0003%w/w**
Iron (Fe)	**max. 0.0001%**		
Nickel (Ni)	**max. 0.0001%**		

Filtered through 0.2µm, filled under inert gas.

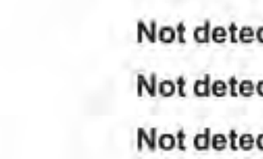
Cat. No. 136802

Methanol absolute

CP

Acidity (as Acetic acid)	**max. 0.01%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 20**	Water (KF)	**max. 0.2%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**		

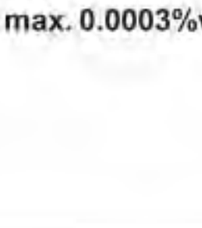
Methyl-d3 alcohol-d, 100 atom%D



CAS [811-98-3]; EC 212-378-6; CD_4O; M 36.06

D 0.89; b.p. 65 °C; UN 1230,3+6.1,II,FT1;

Danger H:225-301-330; P:210-301+310-303+361+353-405-501



Cat. No. 317795

Methyl-d3 alcohol-d, 100 atom%D

For NMR

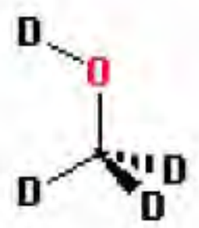
Enrichment (NMR)	**min. 99.95Atom%D**
Water (KF)	**max. 0.02% H_2O+D_2O**

Methyl-d3 alcohol-d, 99.8 atom%D

CAS [811-98-3]; EC 212-378-6; CD_4O; M 36.06

D 0.89; m.p. -99 °C; b.p. 65 °C; UN 1230,3+6.1,II,FT1

Danger H:225-301-330; P:210-301+310-303+361+353-405-501



Cat. No. 306595 ***Methyl-d3 alcohol-d, 99.8 atom%D***

For NMR

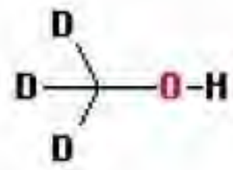
Appearance	**Clear colorless liquid**
Enrichment (NMR)	**min. 99.8Atom%D**
Water (KF)	**max. 0.03% H_2O+D_2O**

Methyl-d3 alcohol, 99.5 atom%D

CAS [1849-29-2]; EC 217-435-9; D_3CHO; M 35.07

D 0.87; b.p. 65 °C; UN 1230,3+6.1,II,FT1;

Danger H:225-301-330; P:210-301+310-303+361+353-405-501



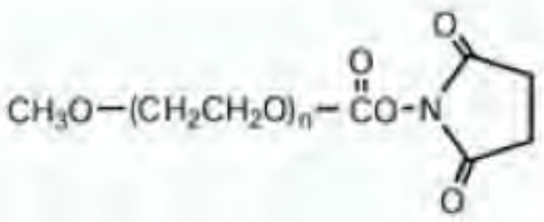
Cat. No. 317695 ***Methyl-d3 alcohol, 99.5 atom%D***

For NMR

Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.05% H_2O+D_2O**

Methoxy PEG Succinimidyl carbonate ester, MW 12000

;CAS [135649-01-3]; M 12000



Cat. No. 168405 ***Methoxy PEG Succinimidyl Carbonate Ester, MW 12000***

AR

Appearance	**White to off-white soild**	Polydispersity (Mw/Mn)	**0.9-1.06**
Identity (H^1NMR)	**Conforms to structure**	12K Fraction	**min. 95%**
Average molecular weight (Mn)	**10800-13200**	Terminal activity	**min. 90%**

2-Methoxyethanol

Synonym: Ethylene glycol monomethyl ether, Methyl glycol

CAS [109-86-4]; EC 203-713-7; $CH_3OCH_2CH_2OH$; M 76.09

D 0.96; m.p. -85 °C; b.p. 124 °C; UN 1188,3,III,F1

Danger H:226-302-312-332-360-360FD; P:210-241-261-303+361+353

Cat. No. 131306 ***2-Methoxyethanol***

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.05%w/w**
Color (APHA)	**max. 10**	A215nm	**max. 1.0AU**
Assay (GC, on anhydrous basis)	**min. 99.9%**	A240nm	**max. 0.2AU**
Acidity (as Acetic acid)	**max. 0.005%**	A260nm	**max. 0.05AU**
Residue after evaporation	**max. 0.0005%w/w**	A300nm	**max. 0.01AU**

Cat. No. 131305

2-Methoxyethanol

AR

Appearance	**Clear colorless liquid**	Peroxides (as H_2O_2)	**max. 0.0003%**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.003%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Water (KF)	**max. 0.05%w/w**

Cat. No. 131302

2-Methoxyethanol

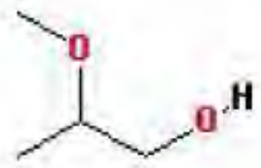
CP

Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 99.5%**
Residue after evaporation	**max. 0.005%w/w**

(R)-(-)-2-Methoxy-1-Propanol

CAS [6131-59-5]; $C_4H_{10}O_2$; M 90.12; D 0.94

Warning; H:226; P:210



Cat. No. 132780

(R)-(-)-2-Methoxy-1-Propanol

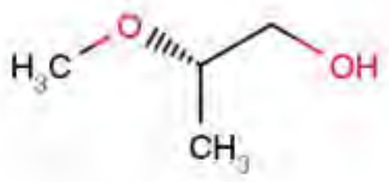
For synthesis

Purity (GC, on anhydrous basis)	**min. 98%**
Identity (IR)	**Conforms to structure**
S.Rotation 20/D (C=1.66 in $CHCl_3$)	**-40.2--38.2°**
Refractive index (20/D)	**1.4060-1.4080**

(S)-(+)-2-Methoxy-1-Propanol

CAS [116422-39-0]; $C_4H_{10}O_2$; M 90.12; D 0.94

Warning; H:226; P:260



Cat. No. 132880

(S)-(+)-2-Methoxy-1-Propanol

For synthesis

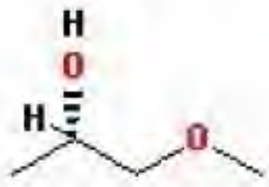
Purity (GC, on anhydrous basis)	**min. 98%**
Identity (IR)	**Conforms to structure**
S.Rotation 20/D (C=1.66 in $CHCl_3$)	**38.2-40.2°**
Refractive index (20/D)	**1.4060-1.4080**

(S)-(+)-1-Methoxy-2-Propanol

CAS [26550-55-0]; EC 203-539-1; $C_4H_{10}O_2$; M 90.12

D 0.92; m.p. -97 °C; b.p. 118-119 °C; UN 3092,3,III,F1

Warning; H:226-336; P:210-241-261-303+361+353



Cat. No. 133080

(S)-(+)-1-Methoxy-2-Propanol

For synthesis

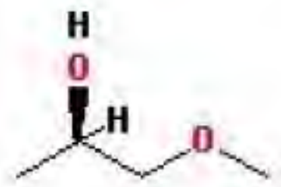
Purity (GC, on anhydrous basis)	**min. 98%**
Identity (IR)	**Conforms with structure**
S.Rotation 20/D (C=10 in $CHCl_3$)	**20-24°**
Refractive index (20/D)	**1.4020-1.4040**

(R)-(-)-1-Methoxy-2-Propanol

CAS [4984-22-9]; EC 203-539-1; $C_4H_{10}O_2$; M 90.12

D 0.92; m.p. -97 °C; b.p. 118-119 °C; UN 3092,3,III,F1

Warning; H:226-336; P:210-241-261-303+361+353



Cat. No. 132980 ***(R)-(-)-1-Methoxy-2-Propanol***

For synthesis

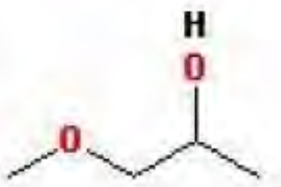
Purity (GC, on anhydrous basis)	**min. 98%**
Identity (IR)	**Conforms with structure**
S.Rotation 20/D (C=10 in $CHCl_3$)	**-24--20°**
Refractive index (20/D)	**1.4020-1.4040**

1-Methoxy-2-Propanol

CAS [107-98-2]; EC 203-539-1; $C_4H_{10}O_2$; M 90.12

D 0.92; m.p. -97 °C; b.p. 120 °C; UN 3092,3,III,F1

Warning; H:226-336; P:210-241-261-303+361+353-405-501



Cat. No. 160205 ***1-Methoxy-2-Propanol***

AR

Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.05%w/w**
Color (APHA)	**max. 10**	2-Methoxy-1-Propanol	**max. 0.5%**
Assay (GC, on anhydrous basis)	**min. 99.5%**		

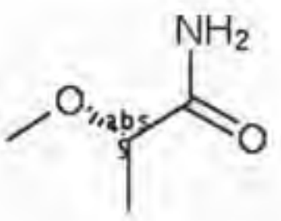
Cat. No. 160202 ***1-Methoxy-2-Propanol***

CP

Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 98%**
2-Methoxy-1-Propanol	**max. 0.5%**

(S)-(-)-2-Methoxypropionamide

CAS [336111-20-7]; $C_4H_9NO_2$; M 103.12; m.p. 80-84 °C



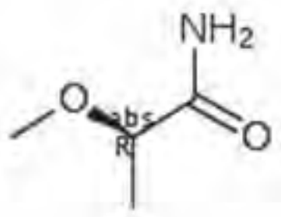
Cat. No. 132380 ***(S)-(-)-2-Methoxypropionamide***

For synthesis

Purity (GC, on anhydrous basis)	**min. 98%**
S.Rotation 20/D (C=2 in Water)	**-57--53°**

(R)-(+)-2-Methoxypropionamide

CAS [336111-21-8]; $C_4H_9NO_2$; M 103.12; m.p. 80-84 °C



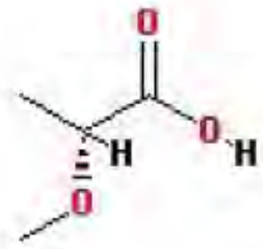
Cat. No. 132480 ***(R)-(+)-2-Methoxypropionamide***

For synthesis

Purity (GC, on anhydrous basis)	**min. 98%**
S.Rotation 20/D (C=2 in Water)	**53-57°**

(R)-(+)-2-Methoxypropionic acid

CAS [23943-96-6]; $C_4H_8O_3$; M 104.11; D 1.08



Cat. No. 132280

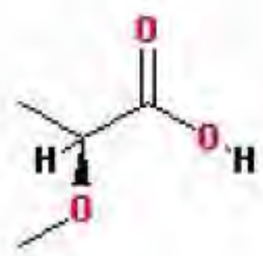
(R)-(+)-2-Methoxypropionic acid

For synthesis

Purity (GC, on anhydrous basis)	**min. 98%**
Identity (IR)	**Conforms to structure**
S.Rotation 20/D (C=5 in $CHCl_3$)	**70-80°**
Refractive index (20/D)	**1.4132-1.4152**

(S)-(-)-2-Methoxypropionic acid

CAS [23953-00-6]; $C_4H_8O_3$; M 104.11; D 1.08



Cat. No. 132180

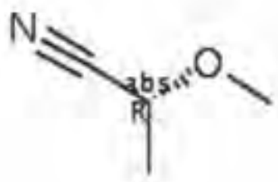
(S)-(-)-2-Methoxypropionic acid

For synthesis

Purity (GC, on anhydrous basis)	**min. 98%**
Identity (IR)	**Conforms to structure**
S.Rotation 20/D (C=5 in $CHCl_3$)	**-80--70°**
Refractive index (20/D)	**1.4132-1.4152**

(R)-(+)-2-Methoxypropionitrile

CAS [299396-92-2]; C_4H_7NO; M 85.10; D 0.90



Cat. No. 132680

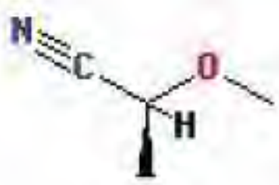
(R)-(+)-2-Methoxypropionitrile

For synthesis

Purity (GC, on anhydrous basis)	**min. 98%**
Identity (IR)	**Conforms to structure**
S.Rotation 20/D (C=1 in MeOH)	**136-143°**
Refractive index (20/D)	**1.3840-1.3860**

(S)-(-)-2-Methoxypropionitrile

CAS [64531-49-3]; C_4H_7NO; M 85.1; D 0.90



Cat. No. 132580

(S)-(-)-2-Methoxypropionitrile

For synthesis

Purity (GC, on anhydrous basis)	**min. 97.5%**
Identity (IR)	**Conforms with standard**
S.Rotation 20/D (C=1 in MeOH)	**-145--135°**
Refractive index (20/D)	**1.3840-1.3860**

Methyl ethyl ketone

Synonym: *Ethyl methyl ketone, MEK, 2-Butanone*

CAS [78-93-3]; EC 201-159-0; C_4H_8O; M 72.11

D 0.806; m.p. -87 °C; b.p. 80 °C; UN 1193,3,II,F1

Danger H:225-319-336; EUH:066; P:210-241-303+361+353-305+351+338

Cat. No. 138710 ***Methyl ethyl ketone MOS***

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 10ppb**
Color (APHA)	**max. 10**	Fe (Iron)	**max. 30ppb**
Assay (GC, on anhydrous basis)	**min. 99%**	Li (Lithium)	**max. 30ppb**
Water (KF)	**max. 0.2%w/w**	Mg (Magnesium)	**max. 30ppb**
Residue after evaporation	**max. 0.0005%w/w**	Mn (Manganese)	**max. 20ppb**
Chloride (Cl)	**max. 2ppm**	Mo (Molybdenum)	**max. 30ppb**
Ag (Silver)	**max. 20ppb**	Ni (Nickel)	**max. 20ppb**
Al (Aluminum)	**max. 20ppb**	Pb (lead)	**max. 30ppb**
As (Arsenic)	**max. 20ppb**	Sb (Antimony)	**max. 30ppb**
B (Boron)	**max. 10ppb**	Si (Silicon)	**max. 50ppb**
Ba (Barium)	**max. 20ppb**	Sn (Tin)	**max. 30ppb**
Be (Beryllium)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Cd (Cadmium)	**max. 20ppb**	V (Vanadium)	**max. 50ppb**
Co (Cobalt)	**max. 20ppb**	Zn (Zinc)	**max. 50ppb**
Cr (Chromium)	**max. 20ppb**	Particle count > 0.5µm	**max. 100P/ml**

Cat. No. 138705 ***Methyl ethyl ketone AR***

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Refractive index (20/D)	**1.3770-1.3820**
Acidity (as Acetic acid)	**max. 0.002%**	Reducing substances (as O)	**max. 0.0005%**
Density (20/4°C)	**0.795-0.805gr/ml**	Water (KF)	**max. 0.05%w/w**
Subs. darkened by Sulfuric Acid	**Passes test**		

Cat. No. 138702 ***Methyl ethyl ketone CP***

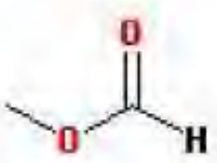
Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.005%w/w**
Density (20/4°C)	**0.795-0.805gr/ml**	Refractive index (20/D)	**1.3770-1.3820**
Assay (GC, on anhydrous basis)	**min. 99%**	Water (KF)	**max. 0.2%w/w**

Methyl formate (stab./BHT)

CAS [107-31-3]; EC 203-481-7; HCO_2CH_3; M 60.05

D 0.968; m.p. -100 °C; b.p. 31-33 °C; UN 1243,3,I,F1

Danger H:224-302-319-332-335; P:210-241-303+361+353-305+351+338



Cat. No. 129905 ***Methyl formate (stab./BHT) AR***

Appearance	**Clear colorless liquid**	pH (20% in water)	**4-5**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.05%w/w**
Assay (GC, corr. stabilizers)	**min. 97%**	Identity (IR)	**Conforms to standard**
Methanol	**max. 3%w/v**	Stabilizer (BHT)	**0.037-0.043%w/w**

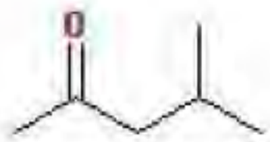
Methyl isobutyl ketone

Synonym: *Isobutyl methyl ketone, Isopropylacetone, 4-Methyl-2-pentanone*

CAS [108-10-1]; EC 203-550-1; $C_6H_{12}O$; M 100.16

D 0.801; m.p. -84 °C; b.p. 117.4 °C; UN 1245,3,II,F1

Danger H:225-319-332-335; EUH:066; P:210-241-303+361+353-305+351+338



Cat. No. 137884

Methyl isobutyl ketone

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	Reducing substances (as O)	**max. 0.0005%**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.03%w/w**
Color (APHA)	**max. 10**	GC/ECD Dioxins, Furans & PCB's	**max. 10ng/L**
F254nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 10ng/L**
F365nm (as Quinine)	**max. 1ppb**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
GC/FID suitability (as 2-Octanol)	**max. 20ng/ml**	GC/ECD volatile impu. (as E. Dibromide)	**max. 5ng/ml**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	T340nm	**min. 30%**
PAH test (<2ppb by HPLC)	**Passes test**	Residue after evaporation	**max. 0.0005%w/w**

Cat. No. 137810

Methyl isobutyl ketone

MOS

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 10ppb**
Acidity (as Acetic acid)	**max. 0.003%**	Fe (Iron)	**max. 30ppb**
Color (APHA)	**max. 10**	Li (Lithium)	**max. 30ppb**
Assay (GC, on anhydrous basis)	**min. 99.0%**	Mg (Magnesium)	**max. 30ppb**
Residue after evaporation	**max. 0.001%w/w**	Mn (Manganese)	**max. 20ppb**
Water (KF)	**max. 0.05%w/w**	Mo (Molybdenum)	**max. 30ppb**
Chloride (Cl)	**max. 1ppm**	Ni (Nickel)	**max. 20ppb**
Ag (Silver)	**max. 20ppb**	Pb (lead)	**max. 30ppb**
Al (Aluminum)	**max. 20ppb**	Sb (Antimony)	**max. 30ppb**
As (Arsenic)	**max. 20ppb**	Si (Silicon)	**max. 50ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 30ppb**
Ba (Barium)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Be (Beryllium)	**max. 20ppb**	V (Vanadium)	**max. 50ppb**
Co (Cobalt)	**max. 20ppb**	Zn (Zinc)	**max. 50ppb**
Cr (Chromium)	**max. 20ppb**	Particle count > 0.5um	**max. 100P/ml**

Cat. No. 137805

Methyl isobutyl ketone

AR

Appearance	**Clear liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	Reducing substances (as O)	**max. 0.0005%**
Color (APHA)	**max. 15**	Water (KF)	**max. 0.05%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**		

Cat. No. 137851

Methyl isobutyl ketone

AR-S glass distilled

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.003%**	Co (Cobalt)	**max. 0.05ppm**
Color (APHA)	**max. 10**	Cr (Chromium)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Cu (Copper)	**max. 0.02ppm**
Residue after evaporation	**max. 0.0005%w/w**	Fe (Iron)	**max. 0.1ppm**
Reducing substances (as O)	**max. 0.0005%**	Mg (Magnesium)	**max. 0.1ppm**
Water (KF)	**max. 0.05%w/w**	Mn (Manganese)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Ni (Nickel)	**max. 0.02ppm**
B (Boron)	**max. 0.02ppm**	Pb (Lead)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 137802

Methyl isobutyl ketone

CP

Color (APHA)	**max. 20**
Assay (GC, on anhydrous basis)	**min. 98%**
Residue after evaporation	**max. 0.005%w/w**

N-Methyl-2-Pyrrolidone

Synonym: 1-Methyl-2-pyrrolidone, NMP

CAS [872-50-4]; EC 212-828-1; C_5H_9NO; M 99.13

D 1.03; m.p. -24 °C; b.p. 204 °C;

Danger H:315-319-335-360D; P:261-280-305+351+338-321-405

Cat. No. 135608

N-Methyl-2-Pyrrolidone

Spectropure

Appearance	**Clear liquid**	T285nm	**min. 15%**
Color (APHA)	**max. 15**	T300nm	**min. 40%**
Assay (GC, on anhydrous basis)	**min. 99.7%**	T320nm	**min. 80%**
Acidity (as Acetic acid)	**max. 0.001%**	T340nm	**min. 95%**
Alkalinity (as Ammonia)	**max. 0.002%**	T400nm	**min. 97%**
Water (KF)	**max. 0.03%w/w**		

Cat. No. 135675

N-Methyl-2-Pyrrolidone

Headspace

Appearance	**Clear colorless liquid**	T285nm	**min. 60%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T300nm	**min. 85%**
Refractive index (20/D)	**1.469-1.471**	T320nm	**min. 90%**
Water (KF)	**max. 0.05%w/w**	T>350nm	**min. 98%**
UV cutoff wavelength	**190-269nm**	Headspace test for O.V.I.	**Passes HS test for O.V.I's**

Filled under inert gas.

Cat. No. 135605

N-Methyl-2-Pyrrolidone

AR

Appearance	**Clear liquid**	Alkalinity (as CH_3NH_2)	**max. 0.01%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Water (KF)	**max. 0.05%w/w**
Color (APHA)	**max. 15**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.001%**		

Cat. No. 135610

N-Methyl-2-Pyrrolidone

MOS

Color (APHA)	**max. 20**	Cr (Chromium)	**max. 100ppb**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Cu (Copper)	**max. 100ppb**
Residue after evaporation	**max. 0.001%w/w**	Fe (Iron)	**max. 100ppb**
Water (KF)	**max. 0.05%w/w**	K (Potassium)	**max. 100ppb**
Alkalinity (as CH_3NH_2)	**max. 0.005%**	Li (Lithium)	**max. 100ppb**
Chloride (Cl)	**max. 0.5ppm**	Mg (Magnesium)	**max. 100ppb**
Phosphate (PO_4)	**max. 1ppm**	Mn (Manganese)	**max. 100ppb**
Dilution test	**Passes test**	Na (Sodium)	**max. 100ppb**
Ag (Silver)	**max. 100ppb**	Ni (Nickel)	**max. 100ppb**
Al (Aluminum)	**max. 100ppb**	Pb (lead)	**max. 100ppb**
As & Sb (as As)	**max. 100ppb**	Sn (Tin)	**max. 100ppb**
Au (Gold)	**max. 100ppb**	Sr (Strontium)	**max. 300ppb**
B (Boron)	**max. 100ppb**	Ti (Titanium)	**max. 100ppb**
Ba (Barium)	**max. 100ppb**	V (Vanadium)	**max. 100ppb**
Ca (Calcium)	**max. 300ppb**	Zn (Zinc)	**max. 100ppb**
Cd (Cadmium)	**max. 100ppb**	Particle count > 0.5µm	**max. 100P/ml**
Co (Cobalt)	**max. 100ppb**	Particle count > 1µm	**max. 10P/ml**

Filtered through 0.4um.

Cat. No. 135603

N-Methyl-2-Pyrrolidone

Meets EP/BP spec.

Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 0.1ppm**
Identity (IR)	**Complies to RS**	Ir (Iridium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Mn (Manganese)	**max. 0.1ppm**
Related substances	**Passes EP/BP test**	Mo (Molybdenum)	**max. 0.1ppm**
Any impurity	**max. 0.1%**	Ni (Nickel)	**max. 0.1ppm**
Total impurities	**max. 0.3%**	Os (Osmium)	**max. 0.1ppm**
Relative density (20°C)	**1.025-1.045**	Pd (Palladium)	**max. 0.1ppm**
Refractive index (20/D)	**1.460-1.480**	Pt (Platinum)	**max. 0.1ppm**
Water (KF)	**max. 0.1%w/w**	Rh (Rhodium)	**max. 0.1ppm**
Alkalinity	**max. 0.003meq/gr**	Ru (Ruthenium)	**max. 0.1ppm**
Cr (Chromium)	**max. 0.1ppm**	V (Vanadium)	**max. 0.1ppm**
Cu (Copper)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
		Heavy metals (as Pb)	**max. 10ppm**

Cat. No. 135647

N-Methyl-2-Pyrrolidone

Extra dry

Appearance	**Clear liquid**	Residue after evaporation	**max. 0.002%w/w**
Color (APHA)	**max. 15**	Water (KF)	**max. 0.005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**		

Cat. No. 135633

N-Methyl-2-Pyrrolidone

Peptide synthesis

Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Mg (Magnesium)	**max. 0.1ppm**
Free Amines (Kaiser)	**max. 0.001%**	Pb (Lead)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Zn (Zinc)	**max. 0.1ppm**
Residue after evaporation	**max. 0.002%w/w**		
Water (KF)	**max. 0.02%w/w**		

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Cat. No. 135632

N-Methyl-2-Pyrrolidone

Peptide-S

Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Mg (Magnesium)	**max. 0.1ppm**
Free Amines (Kaiser)	**max. 0.0003%**	Pb (Lead)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Zn (Zinc)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**		
Water (KF)	**max. 0.01%w/w**		

Cat. No. 135602

N-Methyl-2-Pyrrolidone

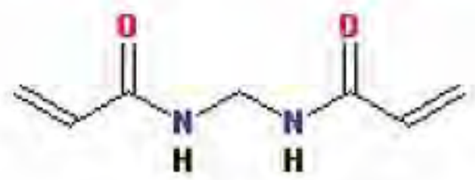
CP

Color (APHA)	**max. 30**
Assay (GC, on anhydrous basis)	**min. 99%**
Water (KF)	**max. 0.2%w/w**

N,N'-Methylenebisacrylamide

Synonym: *Bis-Acryl amide*

CAS [110-26-9]; EC 203-750-9; $C_7H_{10}N_2O_2$; M 154.17



Warning; H:302; P:264-270-301+312-330

Cat. No. 133223

N,N'-Methylenebisacrylamide

Molecular biology

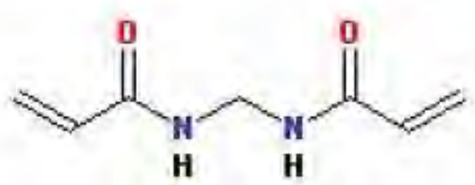
Application: Commonly used as cross linker in the preparation of polyacrylamide electrophoresis gels.

Appearance	**White powder**	A290nm (1%)	**max. 0.2AU**
Conductivity (2% in water)	**max. 10µS/cm**	DNase activity	**Not detected**
Assay bisAcrylamide (on dry basis)	**min. 99.5%**	RNase activity	**Not detected**
Acrylic acid	**max. 0.03%**	Protease activity	**Not detected**
Residual Methanol (GC)	**max. 0.5%**		

N,N'-Methylenebisacrylamide 2%

Synonym: *Bis-Acryl amide*

CAS [110-26-9]; EC 203-750-9; $C_7H_{10}N_2O_2$; M 154.17



Cat. No. 014123

N,N'-Methylenebisacrylamide 2%

Molecular biology

Appearance	**Clear colorless liquid**	A290nm (1%)	**max. 0.2AU**
Conductivity (2% in water)	**max. 10µS/cm**	DNase activity	**Not detected**
Assay bisAcrylamide (on dry basis)	**min. 99.5%**	RNase activity	**Not detected**
Assay (content)	**1.8-2.2%w/v**	Protease activity	**Not detected**

Filtered through 1µm, filled under inert gas.

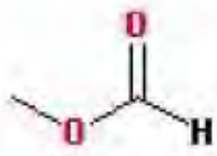
Methylformate

Synonym: *Formic acid methyl ester*

CAS [107-31-3]; EC 203-481-7; HCO_2CH_3; M 60.05

D 0.968; m.p. -100 °C; b.p. 31-33 °C; UN 1243,3,I,F1

Danger H:224-302-319-332-335; P:210-241-303+361+353-305+351+338



Cat. No. 133905

Methylformate

AR

Appearance	**Clear colorless liquid**	pH (20% in water)	**4-5**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.05%w/w**
Assay (GC, on anhydrous basis)	**min. 97%**	Identity (IR)	**Conforms to standard**
Methanol	**max. 3%w/v**		

N-Methylimidazole

Synonym: *1-Methylimidazole*

CAS [616-47-7]; EC 210-484-7; $C_4H_6N_2$; M 82.12

D 1.035; m.p. -2 °C; b.p. 198 °C; UN 1719,8,III,C8

Danger H:302-312-314; P:260-303+361+353-305+351+338-310

Cat. No. 130254

N-Methylimidazole

Extra dry, DNA synthesis

Appearance	**Clear liquid**
Color (APHA)	**max. 10**
Assay (GC, on anhydrous basis)	**min. 99.5%**
Water (KF)	**max. 0.02%w/w**

Cat. No. 130224

N-Methylimidazole

DNA synthesis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.03%w/w**
Color (APHA)	**max. 10**		
Assay (GC, on anhydrous basis)	**min. 99.5%**		

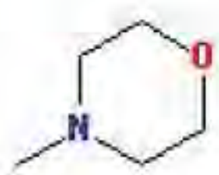
N-Methylmorpholine

Synonym: *1-Methylmorpholine*

CAS [109-02-4]; EC 203-640-0; $C_5H_{11}NO$; M 101.15

D 0.92; m.p. -65 °C; b.p. 112 - 114 °C; UN 2535,3 (8),II,FC

Danger H:225-302-312-314; P:210-303+361+353-305+351+338-310



Cat. No. 133105

N-Methylmorpholine

AR

Appearance	**Clear liquid**	Water (KF)	**max. 0.5%w/w**
Color (APHA)	**max. 10**	Identity (IR)	**Conforms to standard**
Assay (GC, on anhydrous basis)	**min. 99.0%**		

Cat. No. 133133

N-Methylmorpholine

Peptide synthesis

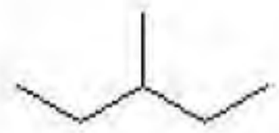
Appearance	**Clear liquid**	Sulfate (SO_4)	**max. 0.005%**
Color (APHA)	**max. 10**	Heavy metals (as Pb)	**max. 0.0005%**
Chloride (Cl)	**max. 0.005%**	Water (KF)	**max. 0.03%w/w**
Assay (GC, on anhydrous basis)	**min. 99%**	Identity (IR)	**Conforms to standard**
Iron (Fe)	**max. 0.0005%**	UV cutoff wavelength	**280-290nm**

3-Methylpentane

CAS [96-14-0]; EC 202-481-4; C_6H_{15}; M 86.18

D 0.664; b.p. 64 °C; UN 1208,3,II,F1;

Danger H:225-304-315-336-411; P:210-241-301+310-303+361+353-405



Cat. No. 172084

3-Methylpentane

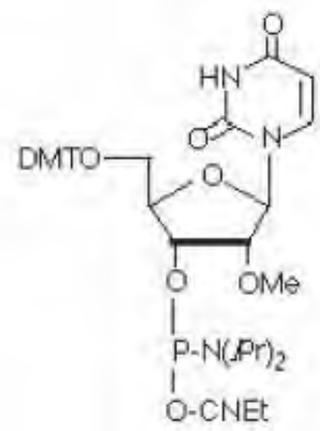
LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**
PAH test (<2ppb by HPLC)	**Passes test**

Filtered through 0.2µm, filled under inert gas.

2'-OMe-U-CE Phosphoramidite

$C_{40}H_{49}N_4O_9P$; M 760.82;



Cat. No. 179524

2'-OMe-U-CE Phosphoramidite

DNA synthesis

Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

Mineral oil light

CAS [8012-95-1]; EC 232-384-2; D 0.85;

Cat. No. 139223

Mineral oil light

Molecular biology

Appearance	**Clear oil**	RNase activity	**Not detected**
Specific gravity	**0.818-0.880**	Protease activity	**Not detected**
DNase activity	**Not detected**		

Mineral spirit

CAS [8052-41-3]; EC 232-489-3; D 0.787; m.p. -40 °C

Danger H:304-350;

Cat. No. 139005 ***Mineral spirit*** ***AR***

Appearance	**Clear colorless liquid**
Color (APHA)	**max. 10**
Density (20/4°C)	**0.77-0.79gr/ml**
Water (KF)	**max. 0.05%w/w**

Cat. No. 139002 ***Mineral spirit*** ***CP***

Appearance	**Clear liquid**
Density (20/4°C)	**0.77-0.79gr/ml**
Boiling range (150-210°C)	**Complies**

Molecular sieves 3A 2.5-5mm

CAS [1318-02-1]; EC 215-283-8;

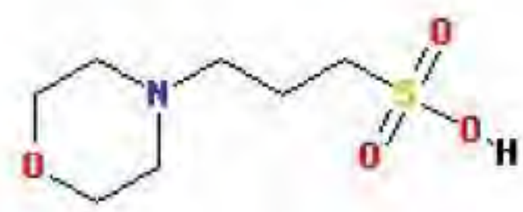
Cat. No. 134799 ***Molecular sieves 3A 2.5-5mm*** ***General reagent***

Appearance	**Beige beads**
Water absorption	**min. 20%**
Particle size	**Complies**

MOPS free acid

Synonym: *3-(N-Morpholino)propanesulfonic acid, 4-Morpholinepropanesulfonic acid*

CAS [1132-61-2]; EC 214-478-5; $C_7H_{15}NO_4S$; M 209.26



Warning; H:302-312; P:264-280-301+312-322-363

Cat. No. 130323 ***MOPS free acid*** ***Molecular biology***

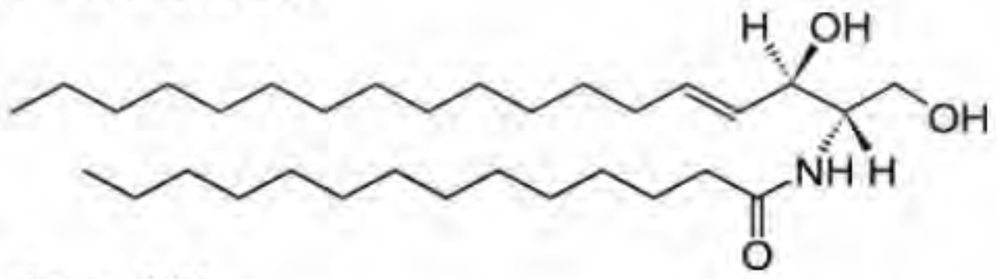
Application: MOPS is used to prepare zwitterionic buffers for RNA electrophoresis in agarose. It works exceptionally well for formaldehyde gels at 20 mM concentration. Electrolyte component for the IEF of 2-D gel electrophoresis. pKa =7.2 at 25°C.

Appearance	**White powder**	A280nm (0.5M)	**max. 0.1AU**
Heavy metals (as Pb)	**max. 0.0005%**	DNase activity	**Not detected**
pH (0.5M in water)	**3-4.5**	RNase activity	**Not detected**
Assay (T)	**99.5-101.0%w/w**	Protease activity	**Not detected**
A260nm (0.5M)	**max. 0.1AU**		

N-Myristoyl-D-erythro-Sphingosine (C14 Ceramide)

Synonym: *Ceramide 14; N-(tetradecanoyl)-sphing-4-enine.*

CAS [123408-74-2]; $C_{32}H_{63}NO_3$; M 509.9;



Cat. No. 039480 ***N-Myristoyl-D-erythro-Sphingosine (C14 Ceramide)***

For synthesis

Appearance	**White to off-white solid**	Purity (TLC)	**min. 98%**
Assay (HPLC)	**min. 98%**	NMR H^1 spectrum	**Conforms to structure**

NaOBT 20%

CAS [123333-53-9]; EC 219-989-7; $C_6H_4N_3ONa$; M 157.11

Danger H:314; P:260-303+361+353-305+351+338-310

Cat. No. 077980 ***NaOBT 20%***

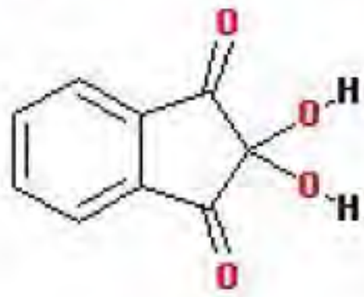
For synthesis

Appearance	**Clear solution**	Density (20/4°C)	**1.09-1.13gr/ml**
Assay (T)	**19-21%w/w**	Assay (T, dry)	**98-101%w/w**
pH	**6.9-7.1**		

Ninhydrin

Synonym: *1,2,3-Indantrione monohydrate, 2,2-Dihydroxy-1,3-indanedione, Trioxohydrindene monohydrate*

CAS [485-47-2]; EC 207-618-1; $C_9H_6O_4$; M 178.14



Warning; H:302-315-319-335; P:261-280-305+351+338-321-405

Cat. No. 148905 ***Ninhydrin***

AR

Assay (HPLC)	**min. 99%**	Sulphated ash	**max. 0.1%**
pH (1% in water)	**4.6-5.6**	Suitability for amino acid analysis	**Conform**
Solubility (0.1% in Water)	**Complete**	Identity (IR)	**Conforms to standard**

Ninhydrin reagent for TLC

$C_9H_6O_4$; UN 1950,2.1,5F;

Danger H:222-302-315-318-335-336-340-350; P:210-251-305+351+338-410+412

Cat. No. 149018 ***Ninhydrin reagent for TLC***

Spray for TLC

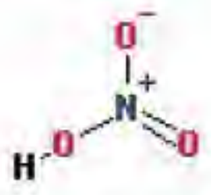
Performance of spray	**Passes test**
Reagent suitability	**Conform**

Nitric Acid 70%

CAS [7697-37-2]; EC 231-714-2; HNO_3; M 63.01

D 1.40; m.p. -42 °C; b.p. 122 °C; UN 2031,8,II,CO1

Danger H:272-314; P:221-303+361+353-305+351+338-310-405-501



Cat. No. 147049 ***Nitric Acid 70%*** ***ULSI***

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 0.5ppb**
Color (APHA)	**max. 10**	Fe (Iron)	**max. 1ppb**
Assay (T)	**67.0-70.0%w/w**	K (Potassium)	**max. 1ppb**
Residue after ignition	**max. 0.0003%**	Mg (Magnesium)	**max. 1ppb**
Chloride (Cl)	**max. 0.2ppm**	Na (Sodium)	**max. 1ppb**
Al (Aluminum)	**max. 1ppb**	Ni (Nickel)	**max. 0.5ppb**
As (Arsenic)	**max. 0.5ppb**	Pb (lead)	**max. 0.1ppb**
Au (Gold)	**max. 0.1ppb**	Sn (Tin)	**max. 0.5ppb**
B (Boron)	**max. 1ppb**	Ti (Titanium)	**max. 0.5ppb**
Ca (Calcium)	**max. 1ppb**	Zn (Zinc)	**max. 0.5ppb**
Cd (Cadmium)	**max. 0.5ppb**	Particle count > 0.5µm	**max. 60P/ml**
Cr (Chromium)	**max. 1ppb**	Particle count > 1µm	**max. 10P/ml**

Cat. No. 147076 ***Nitric Acid 70%*** ***VLSI***

Appearance	**Clear liquid**	Ge (Germanium)	**max. 20ppb**
Color (APHA)	**max. 10**	K (Potassium)	**max. 50ppb**
Assay (T)	**65.0-70.0%w/w**	Li (Lithium)	**max. 10ppb**
Residue after ignition	**max. 0.0003%**	Mg (Magnesium)	**max. 50ppb**
Chloride (Cl)	**max. 0.00005%**	Mn (Manganese)	**max. 10ppb**
Phosphate (PO_4)	**max. 0.00005%**	Na (Sodium)	**max. 100ppb**
Sulfate (SO4)	**max. 0.00005%**	Nb (Niobium)	**max. 20ppb**
Ag (Silver)	**max. 10ppb**	Ni (Nickel)	**max. 20ppb**
Al (Aluminum)	**max. 20ppb**	Pb (lead)	**max. 20ppb**
As (Arsenic)	**max. 5ppb**	Sb (Antimony)	**max. 5ppb**
Au (Gold)	**max. 10ppb**	Si (Silicon)	**max. 50ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 20ppb**
Ba (Barium)	**max. 10ppb**	Sr (Strontium)	**max. 20ppb**
Be (Beryllium)	**max. 10ppb**	Ta (Tantalum)	**max. 20ppb**
Bi (Bismuth)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Ca (Calcium)	**max. 100ppb**	Tl (Thallium)	**max. 20ppb**
Cd (Cadmium)	**max. 10ppb**	V (Vanadium)	**max. 10ppb**
Co (Cobalt)	**max. 10ppb**	Zn (Zinc)	**max. 50ppb**
Cr (Chromium)	**max. 20ppb**	Zr (Zirconium)	**max. 20ppb**
Cu (Copper)	**max. 10ppb**	Particle count > 0.5µm	**max. 60P/ml**
Fe (Iron)	**max. 100ppb**	Particle count > 1µm	**max. 10P/ml**
Ga (Gallium)	**max. 20ppb**		

Cat. No. 147010

Nitric Acid 70%

MOS

Appearance	**Clear liquid**	Ga (Gallium)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Ge (Germanium)	**max. 0.02ppm**
Assay (T)	**65.0-70.0%w/w**	K (Potassium)	**max. 0.05ppm**
Residue after ignition	**max. 0.0005%**	Li (Lithium)	**max. 0.01ppm**
Chloride (Cl)	**max. 0.0001%**	Mg (Magnesium)	**max. 0.05ppm**
Phosphate (PO_4)	**max. 0.0001%**	Mn (Manganese)	**max. 0.02ppm**
Sulfate (SO_4)	**max. 0.0001%**	Na (Sodium)	**max. 0.20ppm**
Ag (Silver)	**max. 0.02ppm**	Nb (Niobium)	**max. 0.05ppm**
Al (Aluminum)	**max. 0.05ppm**	Ni (Nickel)	**max. 0.05ppm**
As (Arsenic)	**max. 0.01ppm**	Pb (Lead)	**max. 0.05ppm**
Au (Gold)	**max. 0.02ppm**	Sb (Antimony)	**max. 0.02ppm**
B (Boron)	**max. 0.05ppm**	Si (Silicon)	**max. 0.05ppm**
Ba (Barium)	**max. 0.05ppm**	Sn (Tin)	**max. 0.02ppm**
Be (Beryllium)	**max. 0.01ppm**	Sr (Strontium)	**max. 0.05ppm**
Bi (Bismuth)	**max. 0.02ppm**	Ta (Tantalum)	**max. 0.01ppm**
Ca (Calcium)	**max. 0.20ppm**	Ti (Titanium)	**max. 0.05ppm**
Cd (Cadmium)	**max. 0.02ppm**	Tl (Thallium)	**max. 0.02ppm**
Co (Cobalt)	**max. 0.02ppm**	V (Vanadium)	**max. 0.05ppm**
Cr (Chromium)	**max. 0.05ppm**	Zn (Zinc)	**max. 0.05ppm**
Cu (Copper)	**max. 0.02ppm**	Zr (Zirconium)	**max. 0.01ppm**
Fe (Iron)	**max. 0.20ppm**	Particle count > 1µm	**max. 10P/ml**

Cat. No. 147005

Nitric Acid 70%

AR

Appearance	**Clear liquid**	Heavy metals (as Pb)	**max. 0.00002%**
Assay (T)	**68.0-70.0%w/w**	Iron (Fe)	**max. 0.00002%**
Color (APHA)	**max. 15**	Sulfate (SO_4)	**max. 0.0001%**
Arsenic (As)	**max. 0.000001%**	Residue after ignition	**max. 0.0005%**
Chloride (Cl)	**max. 0.00005%**		

Cat. No. 147002

Nitric Acid 70%

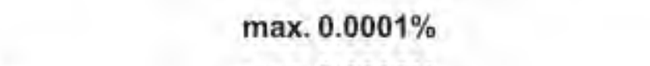
CP

Appearance	**Clear liquid**	Heavy metals (as Pb)	**max. 0.001%**
Arsenic (As)	**max. 0.0001%**	Residue after ignition	**max. 0.005%**
Chloride (Cl)	**max. 0.001%**	Assay (T)	**65-70%w/w**
Iron (Fe)	**max. 0.001%**		

2-(Octadecyloxy)ethanol

Synonym: *Ethylene glycol monooctadecyl ether*

CAS [2136-72-3]; EC 218-374-0; $C_{20}H_{42}O_2$; M 314.55



Cat. No. 139180

2-(Octadecyloxy)ethanol

For synthesis

Appearance	**White fine scales**
Purity (GC, on Anhydrous basis)	**min. 99%**
Melting point	**52-55°C**
Bromooctadecane (GC)	**max. 1%**

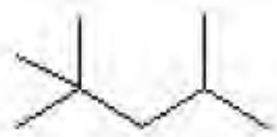
Iso-Octane 99%

Synonym: *2,2,4-Trimethylpentane*

CAS [540-84-1]; EC 208-759-1; C_8H_{18}; M 114.23

D 0.69; m.p. -107 °C; b.p. 98-99 °C; UN 1262,3,II,F1

Danger H:225-304-315-336-400-410; P:210-241-301+310-303+361+353



Cat. No. 091506

Iso-Octane 99%

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T210nm	**min. 30%**
Color (APHA)	**max. 10**	T225nm	**min. 85%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	T235nm	**min. 90%**
Residue after evaporation	**max. 0.0003%w/w**	T270nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 091508

Iso-Octane 99%

Spectropure

Acidity (as Acetic acid)	**max. 0.001%**	Water (KF)	**max. 0.01%w/w**
Color (APHA)	**max. 10**	T210nm	**min. 50%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	T225nm	**min. 90%**
Residue after evaporation	**max. 0.0003%w/w**	T280nm	**min. 99%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 091584

Iso-Octane 99%

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0001%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Water (KF)	**max. 0.01%w/w**
Color (APHA)	**max. 5**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F254nm (as Quinine)	**max. 1ppb**		
F365nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 99.7%**	GC/NPD any Pesticide (as Parathion)	**max. 5ng/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**		
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	Oil index (any hydrocarbon C10-C40)	**max. 0.05mg/L**
PAH test (<2ppb by HPLC)	**Passes test**	T210nm	**min. 25%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 091526

Iso-Octane 99%

Pesti-S

Appearance	**Clear colorless liquid**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Acidity (as Acetic acid)	**max. 0.002%**		
Color (APHA)	**max. 10**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Residue after evaporation	**max. 0.0005%w/w**
		Water (KF)	**max. 0.01%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 091505

Iso-Octane 99%

AR

Assay (GC, on anhydrous basis)	**min. 99.5%**	Sulfur compounds (as S)	**max. 0.005%**
Color (APHA)	**max. 10**	Thiophene test	**Passes ACS test**
Acidity (as Acetic acid)	**max. 0.002%**	Subs. darkened by Sulfuric Acid	**Passes ACS test**
Residue after evaporation	**max. 0.0005%w/w**	Benzene	**max. 0.005%v/v**
Water (KF)	**max. 0.01%w/w**		

Cat. No. 091551

Iso-Octane 99%

AR-S glass distilled

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Color (APHA)	**max. 10**	Co (Cobalt)	**max. 0.02ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Cr (Chromium)	**max. 0.02ppm**
Water (KF)	**max. 0.01%w/w**	Cu (Copper)	**max. 0.02ppm**
Sulfur compounds (as S)	**max. 0.005%**	Fe (Iron)	**max. 0.1ppm**
Benzene	**max. 0.002%v/v**	Mg (Magnesium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0003%w/w**	Mn (Manganese)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Ni (Nickel)	**max. 0.02ppm**
B (Boron)	**max. 0.02ppm**	Pb (Lead)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 091547

Iso-Octane 99%

Extra dry

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.5%**
Acidity (as Acetic acid)	**max. 0.003%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.003%w/w**

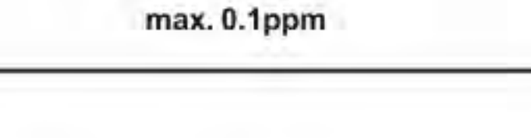
Cat. No. 091502

Iso-Octane 99%

CP

Appearance	**Clear colorless liquid**
Assay (GC, on anhydrous basis)	**min. 99%**
Residue after evaporation	**max. 0.001%w/w**
Water (KF)	**max. 0.05%w/w**

Iso-Octane 95%

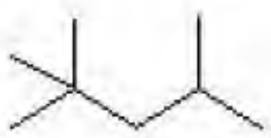


Synonym: 2,2,4-Trimethylpentane

CAS [540-84-1]; EC 208-759-1; C_8H_{18}; M 114.23

D 0.69; m.p. -107 °C; b.p. 98-99 °C; UN 1262,3,II,F1

Danger H:225-304-315-336-400-410; P:210-241-301+310-303+361+353



Cat. No. 091605

Iso-Octane 95%

AR

Appearance	**Clear colorless liquid**	Sulfur compounds (as S)	**max. 0.005%**
Color (APHA)	**max. 10**	Thiophene test	**Passes test**
Assay (GC, on anhydrous basis)	**min. 95%**	Subs. darkened by Sulfuric Acid	**Passes test**
Acidity (as Acetic acid)	**max. 0.002%**	Benzene	**max. 0.005%v/v**
Water (KF)	**max. 0.01%w/w**	Residue after evaporation	**max. 0.0005%w/w**

Cat. No. 091602

Iso-Octane 95%

CP

Appearance	**Clear colorless liquid**
Assay (GC, on anhydrous basis)	**min. 95%**
Residue after evaporation	**max. 0.001%w/w**
Water (KF)	**max. 0.05%w/w**

1-Octanesulfonic acid sodium salt

CAS [5324-84-5]; EC 226-195-4; $C_8H_{17}NaO_3S$; M 216.27

Cat. No. 152706

1-Octanesulfonic acid sodium salt

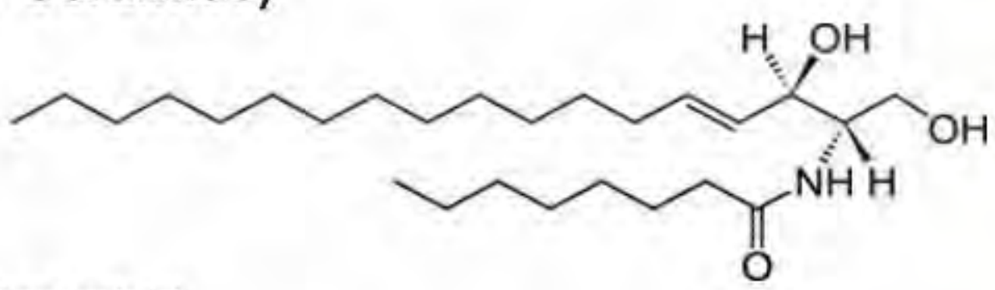
HPLC

Assay (T)	**min. 99%w/w**	T200nm (5mM)	**min. 70%**
pH (0.5M in water)	**5.5-7.5**	T220nm (5mM)	**min. 90%**
Loss on drying (105°C)	**max. 2%**	T250nm (5mM)	**min. 98%**

N-Octanoyl-D-erythro-Sphingosine (C8 Ceramide)

Synonym: *Ceramide C8; N-(octanoyl)-sphing-4-enine.*

CAS [74713-59-0]; $C_{26}H_{51}NO_3$; M 425.7;



Cat. No. 038880

N-Octanoyl-D-erythro-Sphingosine (C8 Ceramide)

For synthesis

Appearance	**White to-off white solid**
Assay (HPLC)	**min. 98%**
Purity (TLC)	**min. 98%**
NMR H^1 spectrum	**Conforms with structure**

2-Octyloxyethanol

Synonym: *Ethylene glycol monooctyl ether*

CAS [10020-43-6]; EC 233-015-8; $C_{10}H_{23}O_2$; M 174.28

Cat. No. 051680

2-Octyloxyethanol

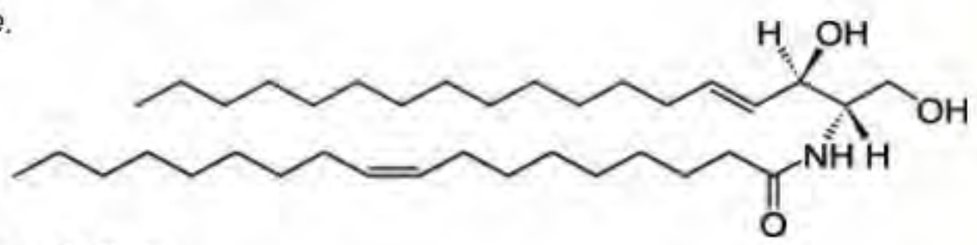
For synthesis

Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 99.5%**
Bromooctane (GC)	**max. 0.1%**

N-Oleoyl-D-erythro-Sphingosine (Ceramide C18:1)

Synonym: *Ceramide C18:1; N-(9Z-octadecenoyl)-sphing-4-enine.*

CAS [5966-28-9]; $C_{36}H_{69}NO_3$; M 564.0;



Cat. No. 310380

N-Oleoyl-D-erythro-Sphingosine (Ceramide C18:1)

For synthesis

Appearance	**White to off white solid**	Purity (TLC)	**min. 98%**
Assay (HPLC)	**min. 98%**	NMR H^1 spectrum	**Conforms to structure**
Melting point	**67-75°C**		

See also Sphingolipids & Phospholipids section, p. 459-474

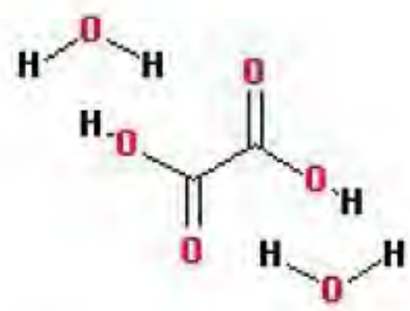
Oxalic acid dihydrate

Synonym: *Ethanedioic acid*

CAS [6153-56-6]; EC 205-634-3; $C_2H_2O_4x2H_2O$; M 126.07

m.p. 157 °C; b.p. 149 - 160 °C; UN 3261,8,III,C4;

Warning; H:302-312; P:264-270-280-301+312-501



Cat. No. 152505 ***Oxalic acid dihydrate***

AR

Appearance	**White or colorless solid**	Chloride (Cl)	**max. 0.002%**
Assay (T)	**99.5-102.5%w/w**	Heavy metals (as Pb)	**max. 0.0005%**
Subs. darkened by Sulfuric Acid	**Passes ACS test**	Iron (Fe)	**max. 0.0002%**
Water insolubles	**max. 0.005%**	Sulfate (SO_4)	**max. 0.005%**
Residue after ignition	**max. 0.01%**		

Cat. No. 152502 ***Oxalic acid dihydrate***

CP

Appearance	**White or colorless solid**	Iron (Fe)	**max. 0.001%**
Assay (T)	**99.0-103.0%w/w**	Sulfate (SO_4)	**max. 0.1%**
Chloride (Cl)	**max. 0.005%**		
Heavy metals (as Pb)	**max. 0.001%**		

Oxidizer 0.02M

Composition: *0.02M THF/Pyr/Water 89.6:0.4:10*

UN 1993,3,II,F1;

Danger H:225-319-335; EUH:019; P:210-241-303+361+353-305+351+338-405

Cat. No. 150924 ***Oxidizer 0.02M***

DNA synthesis

Appearance	**Clear brown liquid**	Iodine (I_2)	**4.8-5.5gr/L**
Pyridine	**0.36-0.44%**		
Tetrahydrofuran	**88.5-90.5%**		

Oxidizer 0.02M

Composition: *0.02M THF/Pyr/Water 70:20:10*

D 0.94; UN 1993,3, II,F1;

Danger H:225-302-319-332-335-336; EUH:019; P:210-241-303+361+353-305+351+338

Cat. No. 151024 ***Oxidizer 0.02M***

DNA synthesis

Appearance	**Clear brown liquid**	Iodine (I_2)	**4.8-5.5gr/L**
Pyridine	**19.5-20.5%**		
Tetrahydrofuran	**69.5-70.5%**		

Oxidizer 0.02M

Composition: *0.02M THF/Pyr/Water 70:10:20*

D 0.94; UN 1993,3,II,F1;

Danger H:225-319-335; EUH:019; P:210-241-303+361+353-305+351+338-405

Cat. No. 151824

Oxidizer 0.02M

DNA synthesis

Appearance	**Clear brown liquid**
Pyridine	**9.5-10.5%**
Tetrahydrofuran	**69.5-70.5%**
Iodine (I_2)	**4.8-5.5gr/L**

Oxidizer 0.05M

Composition: *0.05M Pyr/Water 90:10*

D 1.035; b.p. 100°C; UN 1282,3,II,F1;

Danger H:225-302-312-332; P:210-241-261-280-303+361+353

Cat. No. 150724

Oxidizer 0.05M

DNA synthesis

Appearance	**Clear brown liquid**	Purity of Iodine	**min. 99.8%**
Pyridine	**89-91%**	Purity of Pyridine	**min. 99.8%**
Water	**9-11%**		
Iodine (I_2)	**12.2-13.2gr/L**		

Oxidizer 0.1M

Composition: *0.1M THF/Pyr/Water 78:20:2*

D ~1.02; UN 1993,3,II,F1;

Danger H:225-302-319-335; EUH:019; P:210-241-303+361+353-305+351+338-405

Cat. No. 150624

Oxidizer 0.1M

DNA synthesis

Appearance	**Brown liquid**
Pyridine	**19.5-20.5%**
Tetrahydrofuran	**77.5-78.5%**
Iodine (I_2)	**24.1-26.7gr/L**

See also DNA & RNA synthesis section, p. 363-418

Oxidizer 0.1M

Composition: *0.1M THF/Pyr/Water 78:20:2*

D ~1.02; UN 1993,3,II,F1;

Danger H:225-302-319-335; EUH:019; P:210-241-303+361+353-305+351+338-405

Cat. No. 150624

Oxidizer 0.1M

DNA synthesis

Appearance	**Brown liquid**
Pyridine	**19.5-20.5%**
Tetrahydrofuran	**77.5-78.5%**
Iodine (I_2)	**24.1-26.7gr/L**

Oxidizer 0.1M

Composition: *0.1M THF/Pyr/Water 70:10:20*

D 1.04; UN 1993,3,II,F1;

Danger H:225-302-319-332-335-336; EUH:019; P:210-241-303+361+353-305+351+338

Cat. No. 151624

Oxidizer 0.1M

DNA synthesis

Appearance	**Brown liquid**
Pyridine	**9.5-10.5%**
Tetrahydrofuran	**69.5-70.5%**
Iodine (I_2)	**24.1-26.7gr/L**

Oxidizer 0.118M

Composition: *0.118M THF/Pyr/Water 76:22:2*

D 1.04; UN 1993,3,II,F1;

Danger H:225-302-319-335-336; EUH:019; P:210-241-303+361+353-305+351+338

Cat. No. 152124

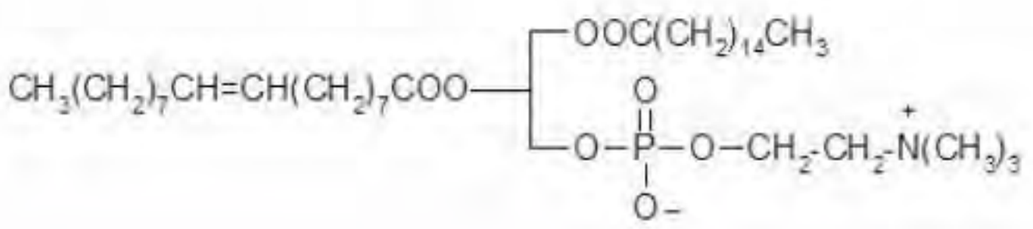
Oxidizer 0.118M

DNA synthesis

Appearance	**Clear brown liquid**
Pyridine	**21.5-22.5%**
Tetrahydrofuran	**75.5-76.5%**
Iodine (I_2)	**28.5-31.5gr/L**

1-Palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine (POPC)

CAS [159701-20-9]; $C_{42}H_{82}NO_8P$; M 760.076;



Specification continues on the next page

Cat. No. 320580

1-Palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine (POPC)

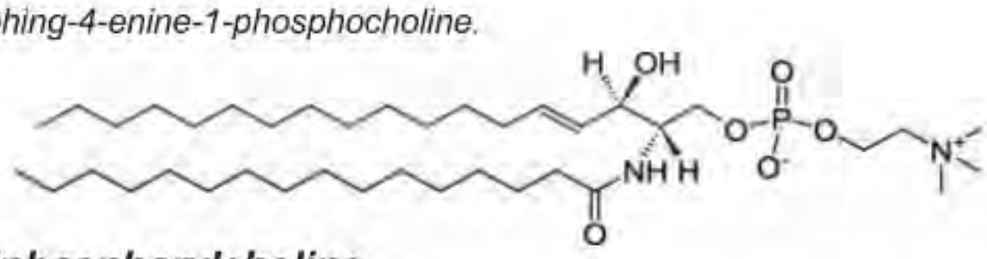
For synthesis

Appearance	**White to off white powder**	Fatty Acid (GC, Plamitic acid)	**47-53%**
Identity (IR)	**Comparable to reference standard**	Fatty Acid (GC, Oleic acid)	**47-53%**
		Water (KF)	**max. 2%w/w**
Purity (TLC)	**min. 95%**		
Assay (HPLC)	**95-105%**		

N-Palmitoyl-D-erythro-Dihydrosphingosylphosphorylcholine

Synonym: *Hexadecanoyl Sphingomyelin; N-(hexadecanoyl)-sphing-4-enine-1-phosphocholine.*

CAS [6254-89-3]; $C_{39}H_{81}N_2O_6P$; M 705.0;



Cat. No. 197180

N-Palmitoyl-D-erythro-Dihydrosphingosylphosphorylcholine

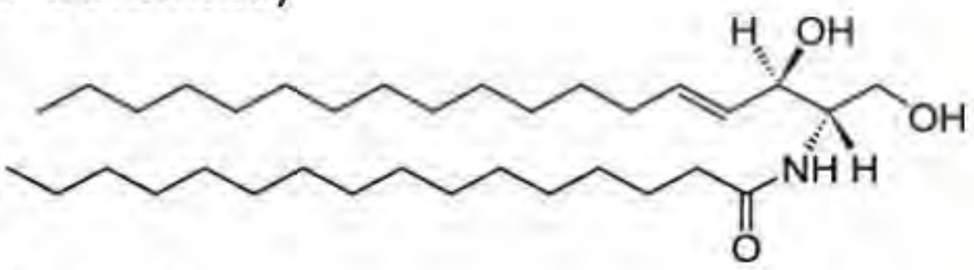
For synthesis

Appearance	**Almost white powder**
Purity (TLC)	**min. 98%**
NMR H^1 spectrum	**Conforms to structure**

N-Palmitoyl-D-erythro-Sphingosine (C16 Ceramide)

Synonym: *Ceramide C16; N-(hexadecanoyl)-sphing-4-enine*

CAS [24696-26-2]; $C_{34}H_{67}NO_3$; M 537.9;



Cat. No. 039580

N-Palmitoyl-D-erythro-Sphingosine (C16 Ceramide)

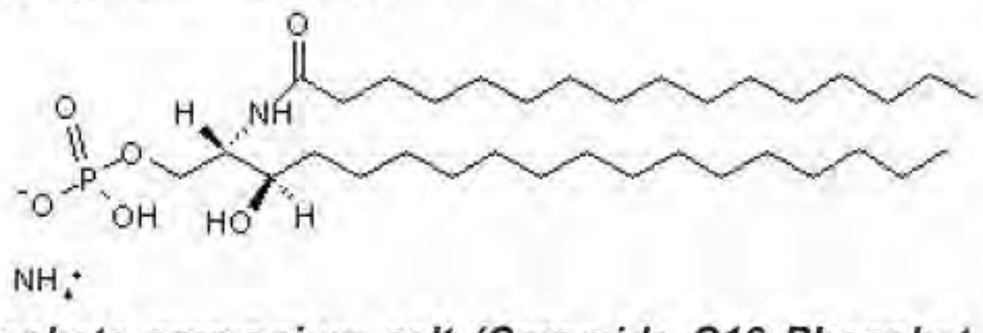
For synthesis

Appearance	**White to off-white solid**	Purity (TLC)	**min. 98%**
Assay (HPLC)	**min. 98%**	NMR H^1 spectrum	**Conforms to structure**

N-Palmitoyl-D-erythro-Sphingosine-1-Phosphate ammonium salt (Ceramide C16 Phosphate)

Synonym: *Ceramide C16 Phosphate*

$C_{34}H_{68}NO_6P$; M 617.9;



Cat. No. 309580

N-Palmitoyl-D-erythro-Sphingosine-1-Phosphate ammonium salt (Ceramide C16 Phosphat

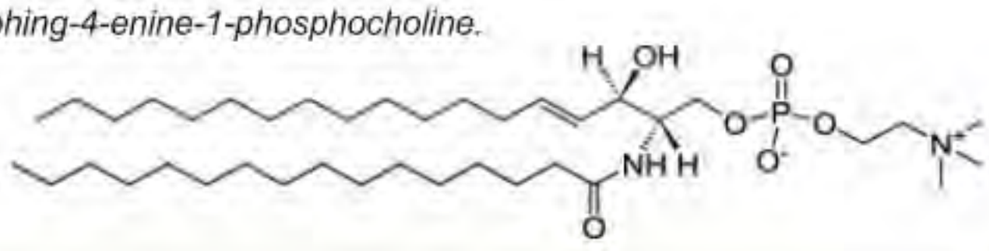
For synthesis

Appearance	**Off-white to brown solid**
Purity (TLC)	**min. 98%**
NMR H^1 spectrum	**Conforms to structure**

N-Palmitoyl-D-erythro-Sphingosylphosphorylcholine (Palmitoyl Sphingomyelin)

Synonym: *Hexadecanoyl Sphingomyelin; N-(hexadecanoyl)-sphing-4-enine-1-phosphocholine.*

CAS [6254-89-3]; $C_{39}H_{79}N_2O_6P$; M 703.028;



Specification continues on the next page

Cat. No. 166080

N-Palmitoyl-D-erythro-Sphingosylphosphorylcholine (Palmitoyl Sphingomyelin)

For synthesis

Appearance	**White to off white powder**	Palmitic acid	**max. 1%**
Identity (IR)	**Conforms to standard**	D-erythro-cis-sphingomyelin	**max. 1%**
NMR H^1 spectrum	**Conforms to structure**	Peroxide Value	**max. 2meq/Kg**
NMR C^{13} Spectrum	**Conforms to structure**	Water (KF)	**max. 5%w/w**
MS Spectra	**ESI+ Corresponds**	Heavy metals	**max. 0.002%**
Purity (TLC)	**min. 98%**	Total viable aerobic count	**max. 100CFU/gr**
Purity (HPLC)	**min. 98%**	Endotoxin activity	**max. 0.006EU/mg**
Impurities by HPLC	**max. 2%**	Residual solvents	**Passes ICH requirements**

Paraffin oil (light)

CAS [8012-95-1]; EC 232-384-2; D 0.85;

Cat. No. 161903

Paraffin oil (light)

Meets EP/BP spec.

Appearance	**Clear colorless oily liquid**	Carbonisable substances	**Passes EP/BP test**
Identification A	**Passes EP/BP test**	PAH Test 260-420nm	**Passes EP/BP test**
Identification B	**Passes EP/BP test**	Solid Paraffin	**Passes EP/BP test**
Identification C	**Passes EP/BP test**	Relative density (20°C)	**0.810-0.875**
Acidity or Alkalinity	**Passes EP/BP test**	Viscosity at 100°F (37.8°C)	**65-90SUS**

Cat. No. 161902

Paraffin oil (light)

CP

Appearance	**Clear oil**
Density (20/4°C)	**0.81-0.88gr/ml**

PBS Buffer 10X (sterile)

Synonym: *Phosphate Buffered Saline*

Composition: *Sodium Chloride 1.37M , Potassium Chloride 0.027M , Phosphate 0.119M.*

D 1.07;

Cat. No. 162323

PBS Buffer 10X (sterile)

Molecular biology

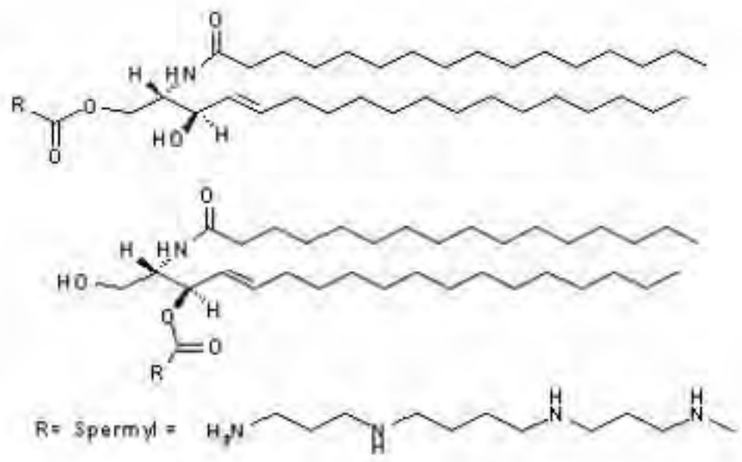
Application: Commonly used as biological buffer with a pH range of 6.2 to 7.8. Also used in Horsradish peroxidase assay.

Appearance	**Clear colorless liquid**	DNase activity	**Not detected**
pH of 1X Conc. (25°C)	**7.35-7.45**	RNase activity	**Not detected**
Density of 1X conc (25°C)	**1.00-1.01gr/ml**	Protease activity	**Not detected**
Conductivity of 1X conc (25°C)	**15-20mS/cm**		
pH of 10X Conc. (25°C)	**6.5-6.9**		
Density of 10X Conc. (25°C)	**1.05-1.09gr/ml**		

See also Molecular Biology section, p. 423-458

1-PCCS, 3-PCCS mix isomers

$C_{45}H_{91}N_5O_4C_2H_4O_2$; M 766.2;



Cat. No. 196680

1-PCCS, 3-PCCS mix isomers

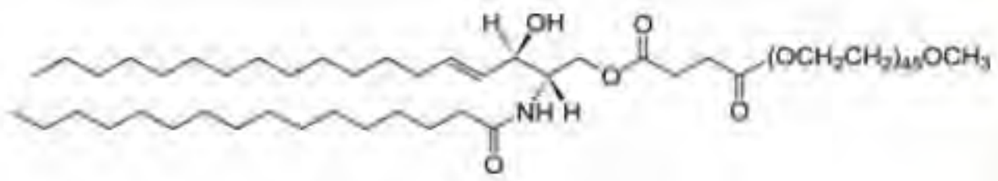
For synthesis

Purity (RP TLC)	**min. 98%**	NMR H^1 spectrum	**Conforms with structure**
Purity (NP TLC)	**min. 98%**	Isomers ratio by NMR	**Conforms**
Identity (IR)	**Conforms with standard**	MS Spectra	**ESI+ Conforms with structure**
NMR C^{13} Spectrum	**Conforms with structure**		

C16 PEG 2000 Ceramide

Synonym: *N-palmitoyl-sphingosine-1-{succinyl[methoxy(polyethylene glycol)2000]}.*

CAS [212116-78-4]; $C_{129}H_{253}NO_{51}$; M 2634.365;



Cat. No. 040080

C16 PEG 2000 Ceramide

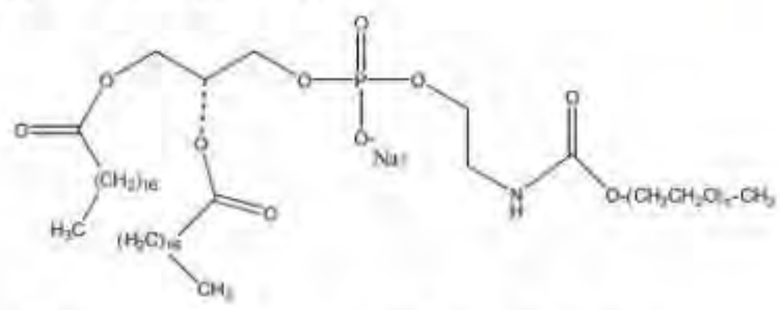
For synthesis

Appearance	**White to off-white solid**	NMR H^1 spectrum	**Conforms to structure**
Purity (HPLC)	**min. 98%**	MS Spectra	**Conforms to structure**
Purity (TLC)	**min. 98%**		

PEG 2000 DSPE

Synonym: *1,2-Distearoyl-phosphatidylethanolamine-methyl-polyethyleneglycol conjugate-2000*

CAS [147867-65-0]; $C_{43}H_{83}NO_{10}P(C_2H_4O)nN$; M 2800;



Cat. No. 167580

PEG 2000 DSPE

For synthesis

Appearance	**White powder**	NMR C^{13} Spectrum	**Conforms to structure**
Dimethylaminopyridine	**max. 50ppm**	NMR H^1 spectrum	**Conforms to structure**
Purity (TLC)	**min. 98%**		

n-Pentane 99%

CAS [109-66-0]; EC 203-692-4; C_5H_{12}; M 72.15

D 0.63; m.p. -130 °C; b.p. 36 °C; UN 1265,3,II,F1

Danger H:225-304-336-411; EUH:066; P:210-241-301+310-303+361+353

Cat. No. 167606

n-Pentane 99%

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T200nm	**min. 40%**
Color (APHA)	**max. 10**	T220nm	**min. 90%**
Assay (GC, on anhydrous basis)	**min. 99.0%**	T270nm	**min. 99%**
Residue after evaporation	**max. 0.0003%w/w**		

Cat. No. 167684

n-Pentane 99%

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0001%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.005%w/w**
Color (APHA)	**max. 5**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F254nm (as Quinine)	**max. 1ppb**		
F365nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 2ng/L**
Assay (GC, on anhydrous basis)	**min. 99%**	GC/NPD any Pesticide (as Parathion)	**max. 5ng/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**		
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	Oil index (any hydrocarbon C10-C40)	**max. 0.05mg/L**
PAH test (<2ppb by HPLC)	**Passes test**	T200nm	**min. 50%**

(Residual trace analysis concentration 500:0.5ml)

Cat. No. 167626

n-Pentane 99%

Pesti-S

Appearance	**Clear colorless liquid**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Color (APHA)	**max. 10**		
Assay (GC, on anhydrous basis)	**min. 99%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.0005%w/w**
		Water (KF)	**max. 0.005%w/w**

Cat. No. 167651

n-Pentane 99%

AR-S glass distilled

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.001%**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 5**	Cr (Chromium)	**max. 0.02ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Cu (Copper)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.0%**	Fe (Iron)	**max. 0.1ppm**
Sulfur compounds (as S)	**max. 0.005%**	Mg (Magnesium)	**max. 0.1ppm**
Benzene	**max. 0.001%v/v**	Mn (Manganese)	**max. 0.02ppm**
Water (KF)	**max. 0.005%w/w**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Residue after evaporation	**max. 0.0002%w/w**

Cat. No. 167647

n-Pentane 99%

Extra dry

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	Water (KF)	**max. 0.002%w/w**
Assay (GC, on anhydrous basis)	**min. 99%**	Benzene	**max. 0.0005%v/v**

Cat. No. 167602

n-Pentane 99%

CP

Acidity (as Acetic acid)	**max. 0.003%**
Assay (GC, on anhydrous basis)	**min. 99%**
Residue after evaporation	**max. 0.003%w/w**
Water (KF)	**max. 0.01%w/w**

n-Pentane

CAS [109-66-0]; EC 203-692-4; C_5H_{12}; M 72.15

D 0.626; m.p. -130 °C; b.p. 36 °C; UN 1265,3,I,F1

Danger H:225-304-336-411; EUH:066; P:210-241-301+310-303+361+353

Cat. No. 160506

n-Pentane

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T200nm	**min. 45%**
Color (APHA)	**max. 10**	T220nm	**min. 90%**
Assay (GC, on anhydrous basis)	**min. 96.0%**	T270nm	**min. 99%**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 160584

n-Pentane

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0001%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.005%w/w**
Color (APHA)	**max. 5**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F254nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 2ng/L**
F365nm (as Quinine)	**max. 1ppb**	GC/NPD any Pesticide (as Parathion)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 96%**	Oil index (any hydrocarbon C10-C40)	**max. 0.05mg/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	T200nm	**min. 50%**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**		
PAH test (<2ppb by HPLC)	**Passes test**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 160560

n-Pentane

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Color (APHA)	**max. 5**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 96%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 160526

n-Pentane

Pesti-S

Appearance	**Clear colorless liquid**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Acidity (as Acetic acid)	**max. 0.002%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Color (APHA)	**max. 5**	Residue after evaporation	**max. 0.0003%w/w**
Assay (GC, on anhydrous basis)	**min. 96%**	Water (KF)	**max. 0.005%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 160505

n-Pentane

AR

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0003%w/w**
Acidity (as Acetic acid)	**max. 0.001%**	Sulfur compounds (as S)	**max. 0.005%**
Color (APHA)	**max. 5**	Benzene	**max. 0.001%v/v**
Subs. darkened by Sulfuric Acid	**Passes test**	Water (KF)	**max. 0.005%w/w**
Assay (GC, on anhydrous basis)	**min. 96%**		

Cat. No. 160551

n-Pentane

AR-S glass distilled

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.001%**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 5**	Cr (Chromium)	**max. 0.02ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Cu (Copper)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 96%**	Fe (Iron)	**max. 0.1ppm**
Sulfur compounds (as S)	**max. 0.005%**	Mg (Magnesium)	**max. 0.1ppm**
Benzene	**max. 0.001%v/v**	Mn (Manganese)	**max. 0.02ppm**
Water (KF)	**max. 0.005%w/w**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Residue after evaporation	**max. 0.0002%w/w**

Cat. No. 160559

n-Pentane

Supra dry

Appearance	**Clear liquid**	Assay (GC, on anhydrous basis)	**min. 96%**
Acidity (as Acetic acid)	**max. 0.003%**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.001%w/w**

Cat. No. 160547

n-Pentane

Extra dry

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 96%**
Acidity (as Acetic acid)	**max. 0.003%**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 5**	Water (KF)	**max. 0.002%w/w**

Cat. No. 160502

n-Pentane

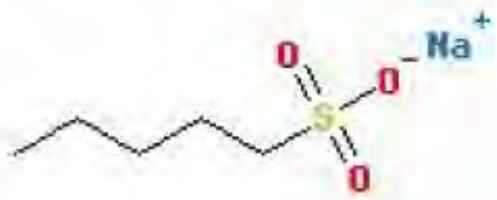
CP

Appearance	**Clear liquid**	Water (KF)	**max. 0.01%w/w**
Assay (GC, on anhydrous basis)	**min. 95%**	Acidity (as Acetic acid)	**max. 0.003%**
Residue after evaporation	**max. 0.003%w/w**		

1-Pentanesulfonic acid sodium salt

Synonym: *Sodium pentanesulfonate*

CAS [22767-49-3]; EC 245-208-4; $C_5H_{11}O_3SNa$; M 174.2



Cat. No. 160406

1-Pentanesulfonic acid sodium salt

HPLC

Assay (T)	**min. 99%w/w**	T200nm (5mM)	**min. 70%**
pH (0.5M in water)	**5.5-7.5**	T220nm (5mM)	**min. 90%**
Loss on drying (105°C)	**max. 2%**	T250nm (5mM)	**min. 98%**

Petroleum ether 30-60°C

Synonym: *Petroleum benzine*

CAS [64742-49-0]; EC 265-151-9; D 0.65; b.p. 30-60°C

Danger H:225-304-315-336-411; EUH:066; P:210-241-301+310-303+361+353-405-501

Cat. No. 171126

Petroleum ether 30-60°C

Pesti-S

Appearance	**Clear colorless liquid**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.0003%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.005%w/w**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**		

Filtered through 0.2µm, filled under inert gas.

Petroleum ether 40-60°C

Synonym: *Petroleum benzine*

CAS [64742-49-0]; EC 265-151-9; D 0.648; b.p. 40-60°C

Danger H:225-304-315-336-411; EUH:066; P:210-241-301+310-303+361+353-405-501

Cat. No. 171506

Petroleum ether 40-60°C

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T200nm	**min. 10%**
Color (APHA)	**max. 10**	T220nm	**min. 75%**
Residue after evaporation	**max. 0.0003%w/w**	T270nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 171584

Petroleum ether 40-60°C

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**
Acidity (as Acetic acid)	**max. 0.002%**	PAH test (<2ppb by HPLC)	**Passes test**
Color (APHA)	**max. 10**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Residue after evaporation	**max. 0.0003%w/w**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Water (KF)	**max. 0.005%w/w**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
F254nm (as Quinine)	**max. 1ppb**	Oil index (any hydrocarbon C10-C40)	**max. 0.05mg/L**
F365nm (as Quinine)	**max. 1ppb**	Bromine number	**max. 0.5**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	T200nm	**min. 25%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 171560

Petroleum ether 40-60°C

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Color (APHA)	**max. 10**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Acidity (as Acetic acid)	**max. 0.001%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Residue after evaporation	**max. 0.0003%w/w**	Specific gravity (20°C)	**0.640-0.655**
Water (KF)	**max. 0.005%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 171526

Petroleum ether 40-60°C

Pesti-S

Appearance	**Clear colorless liquid**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.0003%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.005%w/w**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 171505

Petroleum ether 40-60°C

AR

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Density (15/4°C)	**0.64-0.66gr/ml**
Color (APHA)	**max. 10**	Bromine number	**max. 2**
Subs. darkened by Sulfuric Acid	**Passes test**	Benzene	**max. 0.01%v/v**
Residue after evaporation	**max. 0.0005%w/w**		

Cat. No. 171551

Petroleum ether 40-60°C

AR-S glass distilled

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cr (Chromium)	**max. 0.02ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Cu (Copper)	**max. 0.02ppm**
Residue after evaporation	**max. 0.0003%w/w**	Fe (Iron)	**max. 0.1ppm**
Water (KF)	**max. 0.005%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Density (15/4°C)	**0.64-0.66gr/ml**	Mn (Manganese)	**max. 0.02ppm**
Benzene	**max. 0.005%v/v**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Bromine number	**max. 2**

Cat. No. 171502

Petroleum ether 40-60°C

CP

Color (APHA)	**max. 15**
Residue after evaporation	**max. 0.002%w/w**
Water (KF)	**max. 0.01%w/w**
Density (15/4°C)	**0.64-0.66gr/ml**

Petroleum ether 40-70°C

Synonym: Petroleum benzine

CAS [64742-49-0]; EC 265-151-9; D 0.66; b.p. 40-70°C

Danger H:225-304-315-336-411; EUH:066; P:210-241-301+310-303+361+353-405

Specification continues on the next page

Cat. No. 171651

Petroleum ether 40-70°C

AR-S glass distilled

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.001%**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 5**	Cr (Chromium)	**max. 0.02ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Cu (Copper)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99%**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0002%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Sulfur compounds (as S)	**max. 0.005%**	Mn (Manganese)	**max. 0.02ppm**
Water (KF)	**max. 0.005%w/w**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**		

Petroleum ether 60-80°C

Synonym: Petroleum benzine

CAS [64742-49-0]; EC 265-151-9; D 0.67; b.p. 60-80°C

Danger H:225-304-315-336-411; EUH:066; P:210-241-301+310-303+361+353-405-501

Cat. No. 171805

Petroleum ether 60-80°C

AR

Appearance	**Clear colorless liquid**	Density (15/4°C)	**0.66-0.68gr/ml**
Acidity (as Acetic acid)	**max. 0.002%**	Bromine number	**max. 2**
Color (APHA)	**max. 10**	Benzene	**max. 0.01%v/v**
Subs. darkened by Sulfuric Acid	**Passes test**	Distillation I.B.P	**60-70°C**
Residue after evaporation	**max. 0.0005%w/w**	Distillation F.B.P	**70-80°C**
Water (KF)	**max. 0.01%w/w**		

Cat. No. 171851

Petroleum ether 60-80°C

AR-S glass distilled

Appearance	**Clear colorless liquid**	Co (Cobalt)	**max. 0.02ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Cr (Chromium)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cu (Copper)	**max. 0.02ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0003%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Water (KF)	**max. 0.01%w/w**	Mn (Manganese)	**max. 0.02ppm**
Density (15/4°C)	**0.66-0.68gr/ml**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Bromine number	**max. 2**
Cd (Cadmium)	**max. 0.05ppm**	Benzene	**max. 0.005%v/v**

Cat. No. 171803

Petroleum ether 60-80°C

Meets EP/BP spec.

Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Ir (Iridium)	**max. 0.1ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Mn (Manganese)	**max. 0.1ppm**
Sulfur compounds (as S)	**max. 0.005%**	Mo (Molybdenum)	**max. 0.1ppm**
Water (KF)	**max. 0.01%w/w**	Ni (Nickel)	**max. 0.1ppm**
Benzene	**max. 0.001%v/v**	Os (Osmium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Pd (Palladium)	**max. 0.1ppm**
Iodine value	**max. 0.3GI/100g**	Pt (Platinum)	**max. 0.1ppm**
Density (15/4°C)	**0.66-0.68gr/ml**	Rh (Rhodium)	**max. 0.1ppm**
Identity (GC)	**Conforms**	Ru (Ruthenium)	**max. 0.1ppm**
Cr (Chromium)	**max. 0.1ppm**	V (Vanadium)	**max. 0.1ppm**
Cu (Copper)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 171802

Petroleum ether 60-80°C

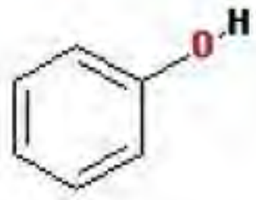
CP

Color (APHA)	**max. 20**
Residue after evaporation	**max. 0.005%w/w**
Density (15/4°C)	**0.66-0.68gr/ml**

Phenol crystals

CAS [108-95-2]; EC 203-632-7; C_6H_6O; M 94.11
m.p. 39-42 °C; b.p. 182 °C; UN 1671,6.1,II,T2;

Danger H:301-311-314-331-341-373; P:301+310-303+361+353-305+351+338-310-361



Cat. No. 169305

Phenol crystals

AR

Appearance	**Colorless crystals**	Heavy metals (as Pb)	**max. 0.0005%**
Solubility (5% in Water)	**Complete, clear solution**	Residue after evaporation	**max. 0.005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Water (KF)	**max. 0.5%w/w**
Iron (Fe)	**max. 0.0001%**		

Cat. No. 169303

Phenol crystals

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Color of solution	**Intensity of sol. S NMT std. B6**
Identification B	**Passes EP/BP test**	Assay	**99.0-100.5%**
Identification C	**Passes EP/BP test**	Acidity	**Solution S is acidic**
Appearance	**Colorless to faintly pink or yellow crys**	Residue after evaporation	**max. 0.05%w/w**
		Soldification point	**39.5-42°C**
Appearance of solution	**Solution S is clear**		

Cat. No. 169336

Phenol crystals

Meets USP spec.

Identification A	**Passes USP test**	Soldification point	**39-42°C**
Identification B	**Passes USP test**	Clarity of solution	**Solution S is clear**
Appearance	**Colorless to faintly pink or yellow crys**	Acidity	**Solution S is netural or acidic**
		Residue after evaporation	**max. 0.05%w/w**
Assay	**99.0-100.5%**		
Water (KF)	**max. 0.5%w/w**		

See also Biophenol formulations, p. 88-90

Cat. No. 169302

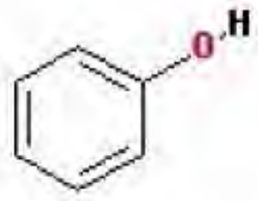
Phenol crystals

CP

Appearance	**Colorless to fainly pink or yellow**
Assay (GC, on anhydrous basis)	**min. 98.5%**
Residue after evaporation	**max. 0.01%w/w**
Water (KF)	**max. 1%w/w**

Phenol liquid 90%

CAS [108-95-2]; EC 203-632-7; C_6H_5OH; M 94.041



Danger H:302-311-314-331-341-373; P:303+361+353-305+351+338-310-361

Cat. No. 169405

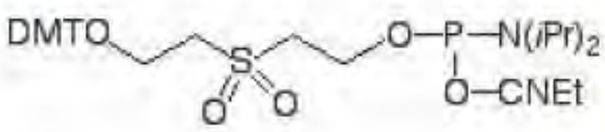
Phenol liquid 90%

AR

Appearance	**Clear colorless liquid**	Water (KF)	**8-12%w/v**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Heavy metals (as Pb)	**max. 0.0005%**
Residue after evaporation	**max. 0.01%w/w**	Iron (Fe)	**max. 0.0005%**

5'-Phosphate amidite

$C_{34}H_{45}N_2O_7PS$; M 656.77;



Warning; H:302-312-319-332; P:261-280-301+312-305+351+338-322-338-351

Cat. No. 173624

5'-Phosphate amidite

DNA synthesis

Assay (HPLC)	**min. 90%**
Solubility (0.1M in ACN)	**Complete, clear**

O-Phosphoric acid 85% w/w

Synonym: Orthophosphoric acid

CAS [7664-38-2]; EC 231-633-2; H_3O_4P; M 98

Danger H:314; P:260-303+361+353-305+351+338-310

Cat. No. 161676

O-Phosphoric acid 85% w/w

VLSI

Appearance	**Clear liquid**	Fe (Iron)	**max. 2ppm**
Assay (T)	**85.0-87.0%w/w**	K (Potassium)	**max. 0.2ppm**
Color (APHA)	**max. 10**	Mg (Magnesium)	**max. 1ppm**
Density (20/4°C)	**1.69-1.72gr/ml**	Mn (Manganese)	**max. 0.1ppm**
Chloride (Cl)	**max. 0.0001%**	Na (Sodium)	**max. 2ppm**
Nitrate (NO_3)	**max. 0.0001%**	Ni (Nickel)	**max. 1ppm**
Sulfate (SO_4)	**max. 0.0008%**	Pb (Lead)	**max. 0.1ppm**
Al (Aluminum)	**max. 0.02ppm**	Sb (Antimony)	**max. 4ppm**
As (Arsenic)	**max. 0.5ppm**	Sn (Tin)	**max. 1ppm**
Ca (Calcium)	**max. 0.3ppm**	Sr (Strontium)	**max. 0.2ppm**
Co (Cobalt)	**max. 0.3ppm**	Zn (Zinc)	**max. 1ppm**
Cr (Chromium)	**max. 1ppm**	Particle count > 1µm	**max. 25P/ml**
Cu (Copper)	**max. 0.3ppm**	Particle count > 0.5µm	**max. 150P/ml**

Cat. No. 169302

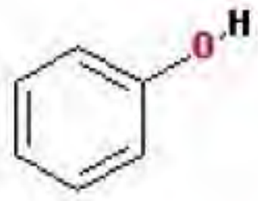
Phenol crystals

CP

Appearance	**Colorless to fainly pink or yellow**
Assay (GC, on anhydrous basis)	**min. 98.5%**
Residue after evaporation	**max. 0.01%w/w**
Water (KF)	**max. 1%w/w**

Phenol liquid 90%

CAS [108-95-2]; EC 203-632-7; C_6H_5OH; M 94.041



Danger H:302-311-314-331-341-373; P:303+361+353-305+351+338-310-361

Cat. No. 169405

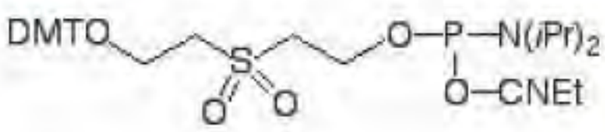
Phenol liquid 90%

AR

Appearance	**Clear colorless liquid**	Water (KF)	**8-12%w/v**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Heavy metals (as Pb)	**max. 0.0005%**
Residue after evaporation	**max. 0.01%w/w**	Iron (Fe)	**max. 0.0005%**

5'-Phosphate amidite

$C_{34}H_{45}N_2O_7PS$; M 656.77;



Warning; H:302-312-319-332; P:261-280-301+312-305+351+338-322-338-351

Cat. No. 173624

5'-Phosphate amidite

DNA synthesis

Assay (HPLC)	**min. 90%**
Solubility (0.1M in ACN)	**Complete, clear**

O-Phosphoric acid 85% w/w

Synonym: Orthophosphoric acid

CAS [7664-38-2]; EC 231-633-2; H_3O_4P; M 98

Danger H:314; P:260-303+361+353-305+351+338-310

Cat. No. 161676

O-Phosphoric acid 85% w/w

VLSI

Appearance	**Clear liquid**	Fe (Iron)	**max. 2ppm**
Assay (T)	**85.0-87.0%w/w**	K (Potassium)	**max. 0.2ppm**
Color (APHA)	**max. 10**	Mg (Magnesium)	**max. 1ppm**
Density (20/4°C)	**1.69-1.72gr/ml**	Mn (Manganese)	**max. 0.1ppm**
Chloride (Cl)	**max. 0.0001%**	Na (Sodium)	**max. 2ppm**
Nitrate (NO_3)	**max. 0.0001%**	Ni (Nickel)	**max. 1ppm**
Sulfate (SO_4)	**max. 0.0008%**	Pb (Lead)	**max. 0.1ppm**
Al (Aluminum)	**max. 0.02ppm**	Sb (Antimony)	**max. 4ppm**
As (Arsenic)	**max. 0.5ppm**	Sn (Tin)	**max. 1ppm**
Ca (Calcium)	**max. 0.3ppm**	Sr (Strontium)	**max. 0.2ppm**
Co (Cobalt)	**max. 0.3ppm**	Zn (Zinc)	**max. 1ppm**
Cr (Chromium)	**max. 1ppm**	Particle count > 1µm	**max. 25P/ml**
Cu (Copper)	**max. 0.3ppm**	Particle count > 0.5µm	**max. 150P/ml**

Cat. No. 161610

O-Phosphoric acid 85% w/w

MOS

Appearance	**Clear liquid**	Fe (Iron)	**max. 5ppm**
Assay (T)	**85.0-87.0%w/w**	K (Potassium)	**max. 0.5ppm**
Color (APHA)	**max. 10**	Mg (Magnesium)	**max. 5ppm**
Density (20/4°C)	**1.69-1.72gr/ml**	Mn (Manganese)	**max. 0.5ppm**
Chloride (Cl)	**max. 0.0002%**	Na (Sodium)	**max. 5ppm**
Nitrate (NO_3)	**max. 0.0005%**	Ni (Nickel)	**max. 2ppm**
Sulfate (SO_4)	**max. 0.002%**	Pb (Lead)	**max. 0.5ppm**
Al (Aluminum)	**max. 2ppm**	Sb (Antimony)	**max. 5ppm**
As (Arsenic)	**max. 0.5ppm**	Sn (Tin)	**max. 5ppm**
Ca (Calcium)	**max. 10ppm**	Sr (Strontium)	**max. 0.5ppm**
Co (Cobalt)	**max. 0.5ppm**	Zn (Zinc)	**max. 5ppm**
Cr (Chromium)	**max. 2ppm**	Particle count > 1µm	**max. 25P/ml**
Cu (Copper)	**max. 0.5ppm**		

Cat. No. 161605

O-Phosphoric acid 85% w/w

AR

Appearance	**Clear colorless liquid**	Heavy metals (as Pb)	**max. 0.001%**
Color (APHA)	**max. 10**	As (Arsenic)	**max. 0.0001%**
Assay (T)	**84.0-87.0%w/w**	Ca (Calcium)	**max. 0.002%**
Insoluble matter	**max. 0.001%**	Fe (Iron)	**max. 0.003%**
Volatile acids (as Acetic acid)	**max. 0.001%**	K (Potassium)	**max. 0.005%**
Reducing substances	**Passes ACS test**	Mg (Magnesium)	**max. 0.002%**
Chloride (Cl)	**max. 0.0003%**	Mn (Manganese)	**max. 0.00005%**
Nitrate (NO_3)	**max. 0.0005%**	Na (Sodium)	**max. 0.025%**
Sulfate (SO_4)	**max. 0.003%**	Sb (Antimony)	**max. 0.002%**

Cat. No. 161603

O-Phosphoric acid 85% w/w

Meets EP/BP spec.

Identification A	**Strongly acidic solution**	Hypophosphorous & Phosphorous acid	**Passes EP/BP test**
Identification B	**Meets the requirements**	Arsenic (As)	**max. 0.0002%**
Appearance	**Clear colorless liquid**	Chloride (Cl)	**max. 0.005%**
Appearance of solution	**Solution S is clear & colorless**	Heavy metals (as Pb)	**max. 0.001%**
Assay (T)	**84.0-90.0%w/w**	Iron (Fe)	**max. 0.005%**
Subs. precipitated with ammonia	**Passes EP/BP test**	Sulfate (SO_4)	**max. 0.01%**

Cat. No. 161604

O-Phosphoric acid 85% w/w

FCC / Food grade

Appearance	**Clear colorless liquid**	Copper (Cu)	**max. 0.0025%**
Arsenic (As)	**max. 0.0002%**	Iron (Fe)	**max. 0.005%**
Chloride (Cl)	**max. 0.0005%**	Assay (T)	**85-87%w/w**

Cat. No. 161602

O-Phosphoric acid 85% w/w

CP

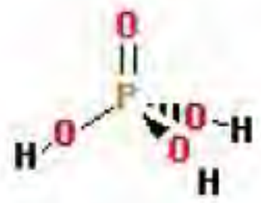
Color (APHA)	**max. 30**
Iron (Fe)	**max. 0.005%**
Assay (T)	**min. 84%w/w**

O-Phosphoric acid 75% w/w

CAS [7664-38-2]; EC 231-633-2; H_3O_4P; M 98

D 1.6; m.p. -17°C; b.p. 135°C; UN 1805,8,III,C1

Danger H:314; P:260-303+361+353-305+351+338-310-405



Cat. No. 165905

O-Phosphoric acid 75% w/w

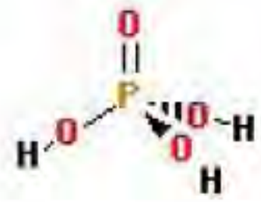
AR

Appearance	**Clear colorless liquid**	Heavy metals (as Pb)	**max. 0.001%**
Color (APHA)	**max. 10**	Iron (Fe)	**max. 0.0005%**
Assay (T)	**75.0-75.8%w/w**	Sulfate (SO_4)	**max. 0.003%**
Arsenic (As)	**max. 0.0001%**	Specific gravity (15.56°C)	**1.570-1.590**
Chloride (Cl)	**max. 0.0003%**		

O-Phosphoric acid 10% w/w

CAS [7664-38-2]; EC 231-633-2; H_3PO_4; M 98.00

Warning; H:315-319; P:264-280-305+351+338-332+313-337+313



Cat. No. 172403

O-Phosphoric acid 10% w/w

Meets EP/BP spec.

Identification A	**Strongly acidic solution**	Arsenic (As)	**max. 0.00002%**
Identification B	**Meets the requirements**	Chloride (Cl)	**max. 0.0006%**
Assay (T)	**9.5-10.5%w/w**	Heavy metals (as Pb)	**max. 0.0001%**
Appearance of solution	**Solution S is clear & colorless**	Iron (Fe)	**max. 0.0006%**
		Sulfate (SO_4)	**max. 0.001%**
Subs. precipitated with ammonia	**Passes EP/BP test**		
Hypophosphorous & Phosphorous acid	**Passes EP/BP test**		

Phosphorus pentoxide

Synonym: Phosphoric anhydride, Phosphorus(V) oxide

CAS [1314-56-3]; EC 215-236-1; O_5P_2; M 141.94

Danger H:314; P:260-303+361+353-305+351+338-310

Cat. No. 161505

Phosphorus pentoxide

AR

Appearance	**White hygroscopic powder**	Heavy metals (as Pb)	**max. 0.005%**
Assay	**min. 98%**	Iron (Fe)	**max. 0.0005%**
Arsenic (As)	**max. 0.005%**	Lower Oxides	**max. 0.02%**

Cat. No. 161502

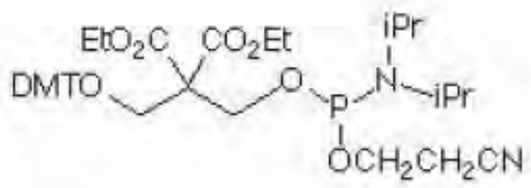
Phosphorus pentoxide

CP

Appearance	**White hygroscopic powder**
Assay	**min. 97%**
Lower Oxides	**max. 1%**

5'-Phosphorylating reagent II

$C_{39}H_{51}N_2O_9P$; M 722.82;



Cat. No. 173724

5'-Phosphorylating reagent II

DNA synthesis

Assay (HPLC)	**min. 90%**
Solubility (0.1M in ACN)	**Complete, clear**

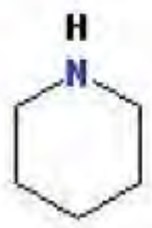
Piperidine

Synonym: *Hexahydropyridine*

CAS [110-89-4]; EC 203-813-0; $C_5H_{11}N$; M 85.15

D 0.862; m.p. -11 °C; b.p. 106 °C; UN 2401,8(3),I,CF1

Danger H:225-311-314-331; P:303+361+353-305+351+338-310-361



Cat. No 161805

Piperidine

AR

Appearance	**Clear liquid**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 20**	Water (KF)	**max. 0.2%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**	2-Picoline	**max. 0.1%**
Pyridine	**max. 0.15%**		

Cat. No. 161833

Piperidine

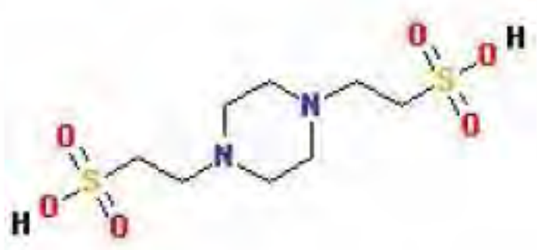
Peptide synthesis

Color (APHA)	**max. 20**	Fe (Iron)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Mg (Magnesium)	**max. 0.1ppm**
Pyridine	**max. 0.15%**	Pb (Lead)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Zn (Zinc)	**max. 0.1ppm**
Water (KF)	**max. 0.1%w/w**		

PIPES

Synonym: *1,4-Piperazinediethanesulfonic acid, Piperazine-1,4-bis(2-ethanesulfonic acid),*

CAS [5625-37-6]; EC 227-057-6; $C_8H_{18}N_2O_6S_2$; M 302.35



Cat. No. 160323

PIPES

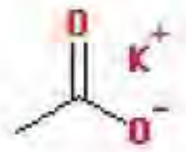
Molecular biology

Application: Zwitterionic agent, usable at pH range of 6.1-7.5.

Appearance	**White powder**	A280nm (0.1M/0.2M NaOH)	**max. 0.05AU**
Heavy metals (as Pb)	**max. 0.0005%**	DNase activity	**Not detected**
Assay (T)	**99.5-100.5%**	RNase activity	**Not detected**
A260nm (0.1M/0.2M NaOH)	**max. 0.05AU**	Protease activity	**Not detected**

Potassium acetate

CAS [127-08-2]; EC 204-822-2; $C_2H_3KO_2$; M 98.14



Cat. No. 165805

Potassium acetate

AR

Appearance	**White to colorless solid**	Sulfate (SO_4)	**max. 0.002%**
Assay (T)	**99.0-101.0%w/w**	Heavy metals (as Pb)	**max. 0.0005%**
pH (5% in water)	**6.5-9.0**	Iron (Fe)	**max. 0.0005%**
Water insolubles	**max. 0.005%**	Calcium (Ca)	**max. 0.005%**
Chloride (Cl)	**max. 0.003%**	Magnesium (Mg)	**max. 0.002%**
Phosphate (PO_4)	**max. 0.001%**	Sodium (Na)	**max. 0.03%**

Cat. No. 165823

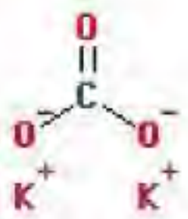
Potassium acetate

Molecular biology

Assay (T)	**min. 99%w/w**	DNase activity	**Not detected**
pH (5% in water)	**6.5-9**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
Iron (Fe)	**max. 0.0005%**		

Potassium carbonate anhydrous

CAS [584-08-7]; EC 209-529-3; CK_2O_3; M 138.20



Warning; H:319; P:264-280-305+351+338-337+313

Cat. No. 163005

Potassium carbonate anhydrous

AR

Appearance	**White solid**	Calcium (Ca)	**max. 0.005%**
Assay (T, dry)	**99.0-101.0%w/w**	Magnesium (Mg)	**max. 0.002%**
Chloride (Cl)	**max. 0.003%**	Sulfate (SO_4)	**max. 0.004%**
Heavy metals (as Pb)	**max. 0.0005%**	Sodium (Na)	**max. 0.02%**
Iron (Fe)	**max. 0.0005%**	Loss on heating at 285°C	**max. 1%**

Cat. No. 163002

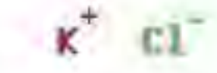
Potassium carbonate anhydrous

CP

Appearance	**White granules**	Chloride (Cl)	**max. 0.01%**
Assay (T, dry)	**99-101%w/w**	Heavy metals (as Pb)	**max. 0.002%**
Loss on heating at 285°C	**max. 2%**	Iron (Fe)	**max. 0.002%**

Potassium chloride

CAS [7447-40-7]; EC 231-211-8; CIK; M 74.54



Cat. No. 163805

Potassium chloride

AR

Appearance	**colorless to white solid**	Heavy metals (as Pb)	**max. 0.0005%**
Assay (T, argen.)	**99.0-100.5%w/w**	Iron (Fe)	**max. 0.0003%**
Iodides (I)	**max. 0.002%**	Calcium (Ca)	**max. 0.002%**
Bromides (Br)	**max. 0.01%**	Magnesium (Mg)	**max. 0.001%**
Chlolrate & Nitrate (as NO_3)	**max. 0.003%**	Sodium (Na)	**max. 0.005%**
Sulfate (SO_4)	**max. 0.001%**	Water insolubles	**max. 0.005%**
Barium (Ba)	**Passes ACS test**	pH (5% in water)	**5.4-8.6**

Cat. No. 163803

Potassium chloride

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Bromides (Br)	**max. 0.1%**
Identification B	**Passes EP/BP test**	Heavy metals (as Pb)	**max. 0.001%**
Appearance	**White crystalline powder**	Iodide (I)	**Passes EP/BP test**
Assay (T, argen.)	**99.0-101.0%w/w**	Iron (Fe)	**max. 0.002%**
Appearance of solution	**Passes EP/BP test**	Magnesium and Alkaline earth metals	**max. 0.02%**
Acidity or Alkalinity	**Passes EP/BP test**	Sodium (Na)	**max. 0.1%**
Loss on drying (105°C)	**max. 1.0%**	Sulfate (SO_4)	**max. 0.03%**
Barium (Ba)	**Passes EP/BP test**		

Cat. No. 163804

Potassium chloride

FCC / Food grade

Appearance	**White crystalling powder**	Hg (Mercury)	**max. 0.0001%**
Assay (T, argen.)	**99.0-100.5%w/w**	Mg (Magnesium)	**max. 0.005%**
Acidity or Alkalinity	**Complies**	Na (Sodium)	**max. 0.1%**
Clarity of solution	**Complies**	Sodium (Na)	**Complies**
Acidity (as HCl)	**max. 0.003%**	Pb (Lead)	**max. 0.0005%**
Alkalinity (as KOH)	**max. 0.005%**	Zn (Zinc)	**max. 0.002%**
Al (Aluminum)	**max. 0.0001%**	Heavy metals (as Pb)	**max. 0.0005%**
As (Arsenic)	**max. 0.0001%**	Bromides (Br)	**max. 0.1%**
Barium (Ba)	**Complies**	Iodide (I)	**Complies**
Ca (Calcium)	**max. 0.005%**	Iodides (I)	**max. 0.005%**
Cd (Cadmium)	**max. 0.0001%**	Sulfate (SO_4)	**max. 0.01%**
Cu (Copper)	**max. 0.001%**	Magnesium and Alkaline earth metals	**max. 0.02%**
Fe (Iron)	**max. 0.001%**	Organic volatile impurities	**Meets the requirements**

Cat. No. 163823

Potassium chloride

Molecular biology

Appearance	**White crystalline powder**	Phosphate (PO_4)	**max. 0.0005%**
Barium (Ba)	**max. 0.001%**	Solubility (1% in Water)	**Clear colorless solution**
Iron (Fe)	**max. 0.0005%**	Assay (T, argen.)	**min. 99.5%w/w**
Water insolubles	**max. 0.005%**	A260nm (1M)	**max. 0.01AU**
Loss on drying (105°C)	**max. 0.2%**	A280nm (1M)	**max. 0.01AU**
Sulfate (SO_4)	**max. 0.03%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	RNase activity	**Not detected**
pH (1M in water)	**5.4-8.6**	Protease activity	**Not detected**

Cat. No. 163802

Potassium chloride

CP

Appearance	**White crystalline powder**
Loss on drying (105°C)	**max. 1%**
Assay (T, argen.)	**min. 99%w/w**

Potassium hydroxide flakes

Synonym: *Caustic potash*

CAS [1310-58-3]; EC 215-181-3; HKO: M 56.11

Danger H:302-314; P:260-303+361+353-305+351+338-310

Cat. No. 164905

Potassium hydroxide flakes

AR

Appearance	**White to off-white flakes**	Phosphate (PO_4)	**max. 0.001%**
Assay (T, Total alkalinity)	**85-100.5%w/w**	Sulfate (SO_4)	**max. 0.003%**
Carbonate (CO_3)	**max. 2.0%w/w**	Sodium (Na)	**max. 1.0%**
Chloride (Cl)	**max. 0.01%**	Nickel (Ni)	**max. 0.001%**
Iron (Fe)	**max. 0.001%**	Calcium (Ca)	**max. 0.005%**
Heavy metals (as Pb)	**max. 0.001%**	Magnesium (Mg)	**max. 0.002%**

Cat. No. 164903

Potassium hydroxide flakes

Meets EP/BP spec.

Identification A	**Passes pH test**	Heavy metals (as Pb)	**max. 0.001%**
Identification B	**Passes ID of Potassium**	Iron (Fe)	**max. 0.001%**
Appearance	**White to off white flakes**	Phosphate (PO_4)	**max. 0.002%**
Appearance of solution	**Clear colorless solution**	Sodium (Na)	**max. 1.0%**
Assay (T, Total alkalinity)	**85.0-100.5%w/w**	Sulfate (SO_4)	**max. 0.005%**
Carbonate (CO_3)	**max. 2.0%w/w**	pH (0.01% in water)	**10.5-14.0**
Chloride (Cl)	**max. 0.005%**	Solubility (10% in Water)	**Clear colorless solution**

Cat. No. 164902

Potassium hydroxide flakes

CP

Appearance	**White to off white flakes**	Sulfate (SO_4)	**max. 0.005%**
Chloride (Cl)	**max. 0.01%**	Assay (T, Total alkalinity)	**min. 85%w/w**
Iron (Fe)	**max. 0.002%**	Carbonate (CO_3)	**max. 4%w/w**

Potassium hydroxide 30% w/w

CAS [1310-58-3]; EC 215-181-3; HKO: M 56.11

Danger H:302-314; P:260-303+361+353-305+351+338-310-405

Cat. No. 165005

Potassium hydroxide 30% w/w

AR

Appearance	**Clear/slight turbid viscous liquid**	Heavy metals (as Pb)	**max. 0.002%**
		Iron (Fe)	**max. 0.001%**
Assay (T, Total alkalinity)	**29-31%w/w**	Sulfate (SO_4)	**max. 0.005%**
Carbonate (CO_3)	**max. 1%w/w**		
Chloride (Cl)	**max. 0.005%**		

Potassium hydroxide 45% w/w

CAS [1310-58-3]; EC 215-181-3; HKO; M 56.11

Danger H:302-314; P:260-303+361+353-305+351+338-310-405

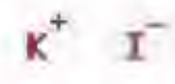
Cat. No. 165102 ***Potassium hydroxide 45% w/w***

CP

Carbonate (CO_3)	**max. 3%w/w**
Assay (T, Total alkalinity)	**43-47%w/w**

Potassium iodide

CAS [7681-11-0]; EC 231-659-4; IK; M 166



Cat. No. 166305 ***Potassium iodide***

AR

Appearance	**White crystalline powder**	Sulfate (SO_4)	**max. 0.005%**
Assay	**99.0-101.0%**	Calcium (Ca)	**max. 0.005%**
pH (5% in water)	**6.0-9.2**	Magnesium (Mg)	**max. 0.005%**
Iron (Fe)	**max. 0.0003%**	Sodium (Na)	**max. 0.01%**
Heavy metals (as Pb)	**max. 0.0005%**	Insoluble matter	**max. 0.005%**
Phosphate (PO_4)	**max. 0.001%**	Loss on drying (105°C)	**max. 0.2%**

Cat. No. 166303 ***Potassium iodide***

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Heavy metals (as Pb)	**max. 0.001%**
Identification B	**Passes EP/BP test**	Sulfate (SO_4)	**max. 0.015%**
Appearance of solution	**Clear colorless solution**	Assay	**99.0-100.5%**
Alkalinity	**Passes EP/BP test**	Iodate (IO_3)	**Passes EP/BP test**
Iron (Fe)	**max. 0.002%**	Thiosulftate (S_2O_3)	**Passes EP/BP test**
Loss on drying (105°C)	**max. 1.0%**		

Cat. No. 166302 ***Potassium iodide***

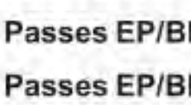
CP

Appearance	**White crystalline powder**	Heavy metals (as Pb)	**max. 0.001%**
Iron (Fe)	**max. 0.002%**	pH (5% in water)	**6.0-9.2**
Loss on drying (105°C)	**max. 1%**	Assay	**99-100.5%**

Potassium methoxide 0.1N in Toluene/Methanol

CAS [865-33-8]; EC 212-736-1; CH_3KO; M 70.13

Danger H:225-304-315-332-370-373-361d; P:210-241-301+310-303+361+353



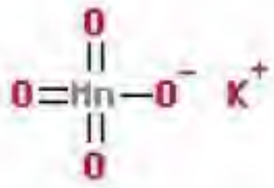
Cat. No. 165680 ***Potassium methoxide 0.1N in Toluene/Methanol***

For synthesis

Appearance of solution	**Clear one phase**
Assay (T)	**0.095-0.105N**
Toluene content	**70-80%**
Methanol content	**20-30%**

Potassium permanganate

CAS [7722-64-7]; EC 231-760-3; $KMnO_4$; M 158.04



Danger H:272-302-400-410; P:210-220-221-280-301+312

Cat. No. 167805 ***Potassium permanganate*** ***AR***

Assay Sulfate	**min. 99%w/w**	Chloride & Chlorates	**max. 0.005%**
(SO_4)	**max. 0.04%**	Water insolubles	**max. 0.2%**

Cat. No. 167803 ***Potassium permanganate*** ***Meets EP/BP spec.***

Identification A	**Passes EP/BP test**	Chloride (Cl)	**max. 0.02%**
Identification B	**Passes EP/BP test**	Sulfate (SO_4)	**max. 0.05%**
Assay	**99.0-100.5%w/w**	Water insolubles	**max. 1.0%**
Appearance of solution	**Solution S is colorless**		

Cat. No. 167802 ***Potassium permanganate*** ***CP***

Water insolubles	**max. 0.2%**
Assay	**min. 98.5%w/w**
Chloride & Chlorates	**max. 0.02%**

Potassium phosphate dibasic anhydrous

Synonym: Dipotassium hydrogenphosphate, Dipotassium phosphate, sec-Potassium phosphate

CAS [7758-11-4]; EC 231-834-5; HK_2O_4P; M 174.17

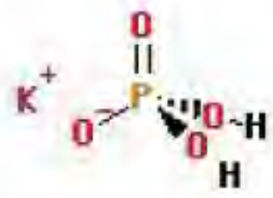
Cat. No. 176505 ***Potassium phosphate dibasic anhydrous*** ***AR***

Appearance	**White to off white solid**	Heavy metals (as Pb)	**max. 0.0005%**
Assay (T)	**98.0-102.0%w/w**	Iron (Fe)	**max. 0.001%**
pH (5% in water)	**8.5-9.6**	Sodium (Na)	**max. 0.05%**
Loss on drying (105°C)	**max. 1%**	Sulfate (SO_4)	**max. 0.005%**
Chloride (Cl)	**max. 0.003%**	Water insolubles	**max. 0.01%**

Potassium phosphate monobasic

Synonym: Potassium dihydrogen phosphate, Monopotassium phosphate

CAS [7778-77-0]; EC 231-913-4; KH_2PO_4; M 136.09



Cat. No. 166505 ***Potassium phosphate monobasic*** ***AR***

Appearance	**White to colorless solid**	Heavy metals (as Pb)	**max. 0.001%**
Assay (T)	**99.0-101.0%w/w**	Iron (Fe)	**max. 0.002%**
pH (5% in water)	**4.1-4.5**	Sulfate (SO_4)	**max. 0.003%**
Loss on drying (105°C)	**max. 0.2%**	Sodium (Na)	**max. 0.005%**
Chloride (Cl)	**max. 0.001%**	Water insolubles	**max. 0.01%**

Cat. No. 166523

Potassium phosphate monobasic

Molecular biology

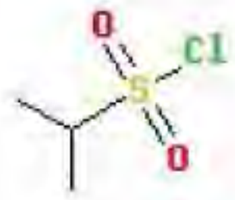
Assay (T)	**99.0-101.0%w/w**	pH (5% in water)	**4.1-4.5**
Chloride (Cl)	**max. 0.002%**	A260nm (0.1M)	**max. 0.005AU**
Heavy metals (as Pb)	**max. 0.001%**	A280nm (0.1M)	**max. 0.005AU**
Iron (Fe)	**max. 0.002%**	DNase activity	**Not detected**
Sodium (Na)	**max. 0.005%**	RNase activity	**Not detected**
Loss on drying (105°C)	**max. 0.2%**	Protease activity	**Not detected**

2-Propanesulfonyl chloride

CAS [10147-37-2]; EC 233-415-2; $C_3H_7ClO_2S$; M 142.60

D 1.27; m.p. -47°C; b.p. 95°C (60 hPa); UN 3265,8,II,C3

Danger H:314-335; P:260-303+361+353-305+351+338-310-405



Cat. No. 091380

2-Propanesulfonyl chloride

For synthesis

Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 98%**
Identity (IR)	**Passes test**

1-Propanol

Synonym: Propyl alcohol

CAS [71-23-8]; EC 200-746-9; C_3H_8O; M 60.1

D 0.80; m.p. -127 °C; b.p. 97 °C; UN 1274,3,III,F1

Danger H:225-318-336; P:210-303+361+353-305+351+338-310-405-501

Cat. No. 163606

1-Propanol

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.05%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	T230nm	**min. 60%**
Color (APHA)	**max. 5**	T240nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T270nm	**min. 98.5%**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 163684

1-Propanol

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	PAH test (<2ppb by HPLC)	**Passes test**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.0003%w/w**
Alkalinity (as Ammonia)	**max. 0.0003%**	Water (KF)	**max. 0.05%w/w**
Color (APHA)	**max. 10**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
F254nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
F365nm (as Quinine)	**max. 1ppb**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	GC/ECD volatile impu. (as E. Dibromide)	**max. 5ng/ml**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	T230nm	**min. 60%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 163605 ***1-Propanol***

AR

Appearance	**Clear colorless liquid**	Acetone	**max. 0.01%**
Acidity (as Acetic acid)	**max. 0.003%**	2-Propanol	**max. 0.05%**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.05%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Residue after evaporation	**max. 0.0005%w/w**
Ethanol	**max. 0.01%**	Aldehydes & Ketones (as C3H6O)	**max. 0.03%**
Methanol	**max. 0.01%**		

Cat. No. 163603 ***1-Propanol***

Meets EP/BP spec.

Appearance	**Clear colorless liquid**	A310nm	**max. 0.010AU**
Color (APHA)	**max. 10**	Absorbance curve	**Smooth curve**
Refractive index (20/D)	**1.384-1.387**	Solubility	**Miscible with Water & Ethanol**
Boiling range (96-98°C)	**Complies**	Cr (Chromium)	**max. 0.1ppm**
Identity (IR)	**Conforms to standard**	Cu (Copper)	**max. 0.1ppm**
Acidity or Alkalinity	**Passes EP/BP test**	Fe (Iron)	**max. 0.1ppm**
Solubility (20% in Water)	**Clear after 5 min.**	Ir (Iridium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Mn (Manganese)	**max. 0.1ppm**
Related substances	**Passes EP/BP test**	Mo (Molybdenum)	**max. 0.1ppm**
Any impurity	**max. 0.1%**	Ni (Nickel)	**max. 0.1ppm**
Total impurities	**max. 0.3%**	Os (Osmium)	**max. 0.1ppm**
Reducing substances	**Passes EP/BP test**	Pd (Palladium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.004%w/w**	Pt (Platinum)	**max. 0.1ppm**
Water (KF)	**max. 0.2%w/w**	Rh (Rhodium)	**max. 0.1ppm**
A230nm	**max. 0.300AU**	Ru (Ruthenium)	**max. 0.1ppm**
A250nm	**max. 0.100AU**	V (Vanadium)	**max. 0.1ppm**
A270nm	**max. 0.030AU**	Zn (Zinc)	**max. 0.1ppm**
A290nm	**max. 0.020AU**		

Cat. No. 163602 ***1-Propanol***

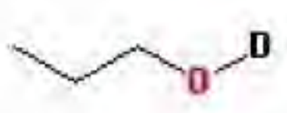
CP

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.003%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	Water (KF)	**max. 0.2%w/w**
Assay (GC, on anhydrous basis)	**min. 99%**		

1-Propanol-d1, 99 atom%D

CAS [4712-36-1]; C_3H_7DO; M 61.1; b.p. 217-220 °C

Danger H:225-318-336; P:210-303+361+353-305+351+338-310-405-501



Cat. No. 320995 ***1-Propanol-d1, 99 atom%D***

For NMR

Enrichment (NMR)	**min. 99Atom%D**
Water (KF)	**max. 0.1% H_2O+D_2O**

2-Propanol

Synonym: *Isopropyl alcohol, Isopropanol, sec-Propyl alcohol, IPA*

CAS [67-63-0]; EC 200-661-7; C_3H_8O; M 60.1

D 0.785; m.p. -89.5 °C; b.p. 81-83 °C; UN 1219,3,II,F1

Danger H:225-319-336; P:210-241-303+361+353-305+351+338-405-501

Cat. No. 162641

2-Propanol

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	Al (Aluminum)	**max. 20ppb**
Color (APHA)	**max. 5**	Ba (Barium)	**max. 50ppb**
Assay (GC, on anhydrous basis)	**min. 99.95%**	Bi (Bismuth)	**max. 50ppb**
Residue after evaporation	**max. 0.0001%w/w**	Ca (Calcium)	**max. 50ppb**
Water (KF)	**max. 0.05%w/w**	Cd (Cadmium)	**max. 50ppb**
Acidity (as Acetic acid)	**max. 0.001%**	Co (Cobalt)	**max. 20ppb**
Alkalinity (as Ammonia)	**max. 0.0001%**	Cr (Chromium)	**max. 20ppb**
MS-ESI+ (as Reserpine)	**max. 20ppb**	Fe (Iron)	**max. 20ppb**
H.Peak by PDAD 235-400nm	**max. 0.002AU**	K (Potassium)	**max. 50ppb**
Grad. elution H.Peak at 235nm	**max. 0.001AU**	Li (Lithium)	**max. 50ppb**
Grad. elution drift at 235nm	**max. 0.010AU**	Mg (Magnesium)	**max. 20ppb**
Grad. elution H.Peak at 254nm	**max. 0.001AU**	Mn (Manganese)	**max. 20ppb**
Grad. elution drift at 254nm	**max. 0.005AU**	Mo (Molybdenum)	**max. 50ppb**
F254nm (as Quinine)	**max. 0.5ppb**	Na (Sodium)	**max. 50ppb**
F365nm (as Quinine)	**max. 0.5ppb**	Ni (Nickel)	**max. 20ppb**
T220nm	**min. 80%**	Pb (lead)	**max. 20ppb**
T230nm	**min. 90%**	Sn (Tin)	**max. 50ppb**
T250nm	**min. 99%**	Sr (Strontium)	**max. 50ppb**
Ag (Silver)	**max. 50ppb**	Zn (Zinc)	**max. 50ppb**

Filtered through 0.1µm, filled under inert gas.

Cat. No. 162678

2-Propanol

LC-MS

Appearance	**Clear colorless liquid**	Bi (Bismuth)	**max. 0.1ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Ca (Calcium)	**max. 0.05ppm**
Alkalinity (as Ammonia)	**max. 0.0005%**	Cd (Cadmium)	**max. 0.05ppm**
Color (APHA)	**max. 5**	Co (Cobalt)	**max. 0.05ppm**
Assay (GC, on anhydrous basis)	**min. 99.95%**	Cr (Chromium)	**max. 0.02ppm**
LC-MS suitability test	**Complies**	Cu (Copper)	**max. 0.02ppm**
Water (KF)	**max. 0.05%w/w**	Fe (Iron)	**max. 0.02ppm**
T210nm	**min. 40%**	K (Potassium)	**max. 0.05ppm**
T220nm	**min. 80%**	Li (Lithium)	**max. 0.1ppm**
T230nm	**min. 90%**	Mg (Magnesium)	**max. 0.05ppm**
T250nm	**min. 98%**	Mn (Manganese)	**max. 0.02ppm**
Grad. elution H.Peak at 235nm	**max. 0.001AU**	Mo (Molybdenum)	**max. 0.05ppm**
Grad. elution H.Peak at 254nm	**max. 0.002AU**	Na (Sodium)	**max. 0.05ppm**
Residue after evaporation	**max. 0.0005%w/w**	Ni (Nickel)	**max. 0.02ppm**
Ag (Silver)	**max. 0.1ppm**	Pb (Lead)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.05ppm**	Sn (Tin)	**max. 0.05ppm**
Ba (Barium)	**max. 0.1ppm**	Sr (Strontium)	**max. 0.05ppm**
		Zn (Zinc)	**max. 0.1ppm**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 162607

2-Propanol

HPLC-S

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.05%w/w**
Acidity	**max. 0.0002meq/gr**	T220nm	**min. 80%**
Alkalinity	**max. 0.0002meq/gr**	T230nm	**min. 90%**
Identity (IR)	**Conforms to standard**	T250nm	**min. 99%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Grad. elution H.Peak at 235nm	**max. 0.001AU**
Residue after evaporation	**max. 0.0002%w/w**	Grad. elution H.Peak at 254nm	**max. 0.001AU**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 162606

2-Propanol

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.05%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T210nm	**min. 30%**
Color (APHA)	**max. 10**	T230nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T270nm	**min. 99%**
Residue after evaporation	**max. 0.0005%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 162616

2-Propanol

HPLC Preparative

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.1%w/w**
Color (APHA)	**max. 10**	T220nm	**min. 40%**
Acidity (as Acetic acid)	**max. 0.002%**	T235nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T260nm	**min. 95%**
Residue after evaporation	**max. 0.0005%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 162638

2-Propanol

Spectrofluopure

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.05%w/w**
Color (APHA)	**max. 10**	T210nm	**min. 35%**
F254nm (as Quinine)	**max. 1ppb**	T230nm	**min. 80%**
F365nm (as Quinine)	**max. 1ppb**	T260nm	**min. 99%**
Assay (GC, on anhydrous basis)	**min. 99.9%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 162608

2-Propanol

Spectropure

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.05%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T210nm	**min. 35%**
Color (APHA)	**max. 10**	T230nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T260nm	**min. 99%**
Residue after evaporation	**max. 0.0005%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 162684

2-Propanol

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**
Acidity (as Acetic acid)	**max. 0.001%**
Alkalinity (as Ammonia)	**max. 0.0001%**
Color (APHA)	**max. 10**
F254nm (as Quinine)	**max. 1ppb**
F365nm (as Quinine)	**max. 1ppb**
Assay (GC, on anhydrous basis)	**min. 99.9%**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**
PAH test (<2ppb by HPLC)	**Passes test**
Residue after evaporation	**max. 0.0003%w/w**
Water (KF)	**max. 0.03%w/w**
GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
T220nm	**min. 80%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 162660

2-Propanol

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**
Acidity (as Acetic acid)	**max. 0.002%**
Color (APHA)	**max. 10**
Assay (GC, on anhydrous basis)	**min. 99.8%**
Residue after evaporation	**max. 0.0003%w/w**
Water (KF)	**max. 0.05%w/w**
GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 162626

2-Propanol

Pesti-S

Appearance	**Clear colorless liquid**
Acidity (as Acetic acid)	**max. 0.002%**
Color (APHA)	**max. 10**
Assay (GC, on anhydrous basis)	**min. 99.8%**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Residue after evaporation	**max. 0.0005%w/w**
Water (KF)	**max. 0.1%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 162805

2-Propanol

AR

Appearance	**Clear colorless liquid**
Acidity (as Acetic acid)	**max. 0.001%**
Alkalinity (as Ammonia)	**max. 0.0002%**
Peroxides	**Not detected**
Color (APHA)	**max. 10**
Assay (GC, on anhydrous basis)	**min. 99.8%**
Acetone	**max. 0.002%**
Butanol	**max. 0.01%**
Ethanol	**max. 0.01%**
Methanol	**max. 0.01%**
Propionaldehyde	**max. 0.002%**
Water (KF)	**max. 0.1%w/w**
Residue after evaporation	**max. 0.0005%w/w**

Cat. No. 162651

2-Propanol

AR-S glass distilled

Appearance	**Clear colorless liquid**	Ba (Barium)	**max. 0.1ppm**
Acidity (as Acetic acid)	**max. 0.001%**	Ca (Calcium)	**max. 0.5ppm**
Alkalinity (as Ammonia)	**max. 0.0002%**	Cd (Cadmium)	**max. 0.05ppm**
Peroxides	**Not detected**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cr (Chromium)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Cu (Copper)	**max. 0.02ppm**
Acetone	**max. 0.01%**	Fe (Iron)	**max. 0.1ppm**
Butanol	**max. 0.01%**	Mg (Magnesium)	**max. 0.1ppm**
Ethanol	**max. 0.01%**	Mn (Manganese)	**max. 0.02ppm**
Methanol	**max. 0.05%**	Ni (Nickel)	**max. 0.02ppm**
Propionaldehyde	**max. 0.002%**	Pb (Lead)	**max. 0.1ppm**
Water (KF)	**max. 0.05%w/w**	Sn (Tin)	**max. 0.1ppm**
Al (Aluminum)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Residue after evaporation	**max. 0.0003%w/w**

Cat. No. 162643

2-Propanol

XLSI

Assay (GC, on anhydrous basis)	**min. 99.9%**	Fe (Iron)	**max. 0.1ppb**
Color (APHA)	**max. 10**	Ga (Gallium)	**max. 0.1ppb**
Acidity	**max. 0.2meq/gr**	Ge (Germanium)	**max. 0.1ppb**
Alkalinity	**max. 0.1meq/gr**	K (Potassium)	**max. 0.1ppb**
Chloride (Cl)	**max. 0.05ppm**	Li (Lithium)	**max. 0.1ppb**
Nitrate (NO_3)	**max. 0.05ppm**	Mg (Magnesium)	**max. 0.1ppb**
Phosphate (PO_4)	**max. 0.05ppm**	Mn (Manganese)	**max. 0.1ppb**
Sulfate (SO_4)	**max. 0.05ppm**	Mo (Molybdenum)	**max. 0.1ppb**
Water (KF)	**max. 0.03%w/w**	Na (Sodium)	**max. 0.3ppb**
Residue after evaporation	**max. 0.00005%w/w**	No (Nobelium)	**max. 0.1ppb**
Ag (Silver)	**max. 0.1ppb**	Ni (Nickel)	**max. 0.1ppb**
Al (Aluminum)	**max. 0.1ppb**	Pb (lead)	**max. 0.1ppb**
As (Arsenic)	**max. 0.1ppb**	Sb (Antimony)	**max. 0.1ppb**
Au (Gold)	**max. 0.1ppb**	Sn (Tin)	**max. 0.1ppb**
B (Boron)	**max. 0.1ppb**	Sr (Strontium)	**max. 0.1ppb**
Ba (Barium)	**max. 0.1ppb**	Ta (Tantalum)	**max. 0.1ppb**
Be (Beryllium)	**max. 0.1ppb**	Th (Thorium)	**max. 0.1ppb**
Bi (Bismuth)	**max. 0.1ppb**	Ti (Titanium)	**max. 0.1ppb**
Ca (Calcium)	**max. 0.3ppb**	Tl (Thallium)	**max. 0.1ppb**
Cd (Cadmium)	**max. 0.1ppb**	V (Vanadium)	**max. 0.1ppb**
Co (Cobalt)	**max. 0.1ppb**	Zn (Zinc)	**max. 0.1ppb**
Cr (Chromium)	**max. 0.1ppb**	Zr (Zirconium)	**max. 0.1ppb**
Cu (Copper)	**max. 0.1ppb**	Particle count > 0.5µm	**max. 30P/ml**

Cat. No. 162642 ***2-Propanol SLSI***

Color (APHA)	**max. 10**	Fe (Iron)	**max. 1ppb**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Ga (Gallium)	**max. 1ppb**
Acidity	**max. 0.2meq/gr**	Ge (Germanium)	**max. 1ppb**
Alkalinity	**max. 0.1meq/gr**	K (Potassium)	**max. 1ppb**
Chloride (Cl)	**max. 0.05ppm**	Li (Lithium)	**max. 1ppb**
Nitrate (NO_3)	**max. 0.05ppm**	Mg (Magnesium)	**max. 1ppb**
Phosphate (PO_4)	**max. 0.05ppm**	Mn (Manganese)	**max. 1ppb**
Sulfate (SO_4)	**max. 0.05ppm**	Mo (Molybdenum)	**max. 1ppb**
Water (KF)	**max. 0.03%w/w**	Na (Sodium)	**max. 3ppb**
Residue after evaporation	**max. 0.00005%w/w**	No (Nobelium)	**max. 1ppb**
Ag (Silver)	**max. 1ppb**	Ni (Nickel)	**max. 1ppb**
Al (Aluminum)	**max. 1ppb**	Pb (lead)	**max. 1ppb**
As (Arsenic)	**max. 1ppb**	Sb (Antimony)	**max. 1ppb**
Au (Gold)	**max. 1ppb**	Sn (Tin)	**max. 1ppb**
B (Boron)	**max. 1ppb**	Sr (Strontium)	**max. 1ppb**
Ba (Barium)	**max. 1ppb**	Ta (Tantalum)	**max. 1ppb**
Be (Beryllium)	**max. 1ppb**	Th (Thorium)	**max. 1ppb**
Bi (Bismuth)	**max. 1ppb**	Ti (Titanium)	**max. 1ppb**
Ca (Calcium)	**max. 3ppb**	Tl (Thallium)	**max. 1ppb**
Cd (Cadmium)	**max. 1ppb**	V (Vanadium)	**max. 1ppb**
Co (Cobalt)	**max. 1ppb**	Zn (Zinc)	**max. 1ppb**
Cr (Chromium)	**max. 1ppb**	Zr (Zirconium)	**max. 1ppb**
Cu (Copper)	**max. 1ppb**	Particle count > 0.5µm	**max. 30P/ml**

Cat. No. 162649 ***2-Propanol ULSI***

Assay (GC, on anhydrous basis)	**min. 99.9%**	Fe (Iron)	**max. 5ppb**
Color (APHA)	**max. 10**	Ga (Gallium)	**max. 10ppb**
Acidity	**max. 0.2meq/gr**	Ge (Germanium)	**max. 10ppb**
Alkalinity	**max. 0.1meq/gr**	K (Potassium)	**max. 10ppb**
Chloride (Cl)	**max. 0.5ppm**	Li (Lithium)	**max. 10ppb**
Nitrate (NO_3)	**max. 0.1ppm**	Mg (Magnesium)	**max. 10ppb**
Phosphate (PO_4)	**max. 0.5ppm**	Mn (Manganese)	**max. 10ppb**
Sulfate (SO_4)	**max. 0.5ppm**	Mo (Molybdenum)	**max. 10ppb**
Water (KF)	**max. 0.05%w/w**	Na (Sodium)	**max. 10ppb**
Residue after evaporation	**max. 0.0005%w/w**	No (Nobelium)	**max. 10ppb**
Ag (Silver)	**max. 5ppb**	Ni (Nickel)	**max. 10ppb**
Al (Aluminum)	**max. 10ppb**	Pb (lead)	**max. 10ppb**
As (Arsenic)	**max. 10ppb**	Sb (Antimony)	**max. 10ppb**
Au (Gold)	**max. 10ppb**	Sn (Tin)	**max. 10ppb**
B (Boron)	**max. 10ppb**	Sr (Strontium)	**max. 10ppb**
Ba (Barium)	**max. 10ppb**	Ta (Tantalum)	**max. 10ppb**
Be (Beryllium)	**max. 10ppb**	Ti (Titanium)	**max. 10ppb**
Bi (Bismuth)	**max. 10ppb**	Tl (Thallium)	**max. 10ppb**
Ca (Calcium)	**max. 10ppb**	V (Vanadium)	**max. 10ppb**
Cd (Cadmium)	**max. 10ppb**	Zn (Zinc)	**max. 10ppb**
Co (Cobalt)	**max. 10ppb**	Zr (Zirconium)	**max. 10ppb**
Cr (Chromium)	**max. 10ppb**	Particle count > 0.5µm	**max. 30P/ml**
Cu (Copper)	**max. 10ppb**		

Cat. No. 162676 ***2-Propanol VLSI***

Color (APHA)	**max. 10**	Ge (Germanium)	**max. 20ppb**
Assay (GC, on anhydrous basis)	**min. 99.8%**	K (Potassium)	**max. 50ppb**
Residue after evaporation	**max. 0.0003%w/w**	Li (Lithium)	**max. 30ppb**
Water (KF)	**max. 0.05%w/w**	Mg (Magnesium)	**max. 20ppb**
Acidity (as Acetic acid)	**max. 0.001%**	Mn (Manganese)	**max. 15ppb**
Alkalinity (as Ammonia)	**max. 0.0002%**	Mo (Molybdenum)	**max. 20ppb**
Chloride (Cl)	**max. 0.1ppm**	Na (Sodium)	**max. 50ppb**
Phosphate (PO_4)	**max. 0.3ppm**	Nb (Niobium)	**max. 20ppb**
Ag (Silver)	**max. 10ppb**	Ni (Nickel)	**max. 10ppb**
Al (Aluminum)	**max. 20ppb**	Pb (lead)	**max. 20ppb**
As (Arsenic)	**max. 10ppb**	Sb (Antimony)	**max. 10ppb**
Au (Gold)	**max. 10ppb**	Si (Silicon)	**max. 30ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 20ppb**
Ba (Barium)	**max. 10ppb**	Sr (Strontium)	**max. 20ppb**
Be (Beryllium)	**max. 10ppb**	Ta (Tantalum)	**max. 20ppb**
Bi (Bismuth)	**max. 30ppb**	Ti (Titanium)	**max. 20ppb**
Ca (Calcium)	**max. 30ppb**	Tl (Thallium)	**max. 10ppb**
Cd (Cadmium)	**max. 20ppb**	V (Vanadium)	**max. 20ppb**
Co (Cobalt)	**max. 20ppb**	Zn (Zinc)	**max. 30ppb**
Cr (Chromium)	**max. 20ppb**	Zr (Zirconium)	**max. 30ppb**
Cu (Copper)	**max. 10ppb**	Particle count > 0.5µm	**max. 100P/ml**
Fe (Iron)	**max. 25ppb**		
Ga (Gallium)	**max. 20ppb**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 162610 ***2-Propanol MOS***

Color (APHA)	**max. 10**	Ga (Gallium)	**max. 50ppb**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Ge (Germanium)	**max. 50ppb**
Residue after evaporation	**max. 0.0003%w/w**	K (Potassium)	**max. 100ppb**
Water (KF)	**max. 0.05%w/w**	Li (Lithium)	**max. 50ppb**
Acidity (as Acetic acid)	**max. 0.001%**	Mg (Magnesium)	**max. 20ppb**
Alkalinity (as Ammonia)	**max. 0.0002%**	Mn (Manganese)	**max. 15ppb**
Chloride (Cl)	**max. 0.1ppm**	Mo (Molybdenum)	**max. 50ppb**
Phosphate (PO_4)	**max. 0.3ppm**	Na (Sodium)	**max. 100ppb**
Heavy metals (as Pb)	**max. 0.2ppm**	Nb (Niobium)	**max. 50ppb**
Dilution test	**Passes test**	Ni (Nickel)	**max. 10ppb**
Ag (Silver)	**max. 20ppb**	Pb (lead)	**max. 20ppb**
Al (Aluminum)	**max. 50ppb**	Sb (Antimony)	**max. 10ppb**
As (Arsenic)	**max. 10ppb**	Si (Silicon)	**max. 50ppb**
Au (Gold)	**max. 20ppb**	Sn (Tin)	**max. 50ppb**
B (Boron)	**max. 10ppb**	Sr (Strontium)	**max. 20ppb**
Ba (Barium)	**max. 20ppb**	Ta (Tantalum)	**max. 50ppb**
Be (Beryllium)	**max. 20ppb**	Ti (Tilanium)	**max. 20ppb**
Bi (Bismuth)	**max. 50ppb**	Tl (Thallium)	**max. 10ppb**
Ca (Calcium)	**max. 50ppb**	V (Vanadium)	**max. 50ppb**
Cd (Cadmium)	**max. 20ppb**	Zn (Zinc)	**max. 50ppb**
Co (Cobalt)	**max. 20ppb**	Zr (Zirconium)	**max. 50ppb**
Cr (Chromium)	**max. 20ppb**	Particle count > 0.5µm	**max. 100P/ml**
Cu (Copper)	**max. 10ppb**	Particle count > 1µm	**max. 8P/ml**
Fe (Iron)	**max. 50ppb**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 162664

2-Propanol

Meets ACS/EP/BP/USP spec.

Identification A	**Passes EP\BP test**	A230nm	**max. 0.30AU**
Identification B	**Passes EP\BP Test**	A250nm	**max. 0.10AU**
Identification C	**Passes EP\BP Test**	A270nm	**max. 0.03AU**
Appearance	**Clear Colorless Liquid**	A290nm	**max. 0.02AU**
Identity (IR)	**Conforms to standard**	A310nm	**max. 0.01AU**
Specific gravity	**0.783-0.787**	Cr (Chromium)	**max. 0.1ppm**
Solubility (5% in Water)	**Clear**	Cu (Copper)	**max. 0.1ppm**
Acidity	**Passes USP test**	Fe (Iron)	**max. 0.1ppm**
Acidity or Alkalinity	**Passes EP\BP test**	Ir (Iridium)	**max. 0.1ppm**
Peroxides	**Passes EP\BP test**	Mn (Manganese)	**max. 0.1ppm**
Relative density (20°C)	**0.785-0.789**	Mo (Molybdenum)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Ni (Nickel)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Os (Osmium)	**max. 0.1ppm**
Refractive index (20/D)	**1.376-1.378**	Pd (Palladium)	**max. 0.1ppm**
Water (KF)	**max. 0.5%w/w**	Pt (Platinum)	**max. 0.1ppm**
Related substances	**Passes EP\BP test**	Rh (Rhodium)	**max. 0.1ppm**
Benzene	**max. 0.0002%v/v**	Ru (Ruthenium)	**max. 0.1ppm**
Total impurities	**max. 0.3%**	V (Vanadium)	**max. 0.1ppm**
Absorbance curve	**Smooth**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 162603

2-Propanol

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	A270nm	**max. 0.03AU**
Identification B	**Passes EP/BP test**	A290nm	**max. 0.02AU**
Identification C	**Passes EP/BP test**	A310nm	**max. 0.01AU**
Appearance	**Clear colorless liquid**	Cr (Chromium)	**max. 0.1ppm**
Solubility (5% in Water)	**Clear solution**	Cu (Copper)	**max. 0.1ppm**
Acidity or Alkalinity	**Passes EP/BP test**	Fe (Iron)	**max. 0.1ppm**
Peroxides	**Passes EP/BP test**	Ir (Iridium)	**max. 0.1ppm**
Relative density (20°C)	**0.785-0.789**	Mn (Manganese)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Mo (Molybdenum)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Ni (Nickel)	**max. 0.1ppm**
Refractive index (20/D)	**1.376-1.379**	Os (Osmium)	**max. 0.1ppm**
Water (KF)	**max. 0.5%w/w**	Pd (Palladium)	**max. 0.1ppm**
Related substances	**Passes EP/BP test**	Pt (Platinum)	**max. 0.1ppm**
Benzene	**max. 0.0002%v/v**	Rh (Rhodium)	**max. 0.1ppm**
Total impurities	**max. 0.3%**	Ru (Ruthenium)	**max. 0.1ppm**
Absorbance curve	**Smooth**	V (Vanadium)	**max. 0.1ppm**
A230nm	**max. 0.30AU**	Zn (Zinc)	**max. 0.1ppm**
A250nm	**max. 0.10AU**		

Cat. No. 162636

2-Propanol

Meets USP spec.

Appearance	**Clear colorless liquid**	Fe (Iron)	**max. 0.1ppm**
Acidity	**Passes USP test**	Ir (Iridium)	**max. 0.1ppm**
Identification	**IR Conforms**	Mn (Manganese)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Mo (Molybdenum)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Ni (Nickel)	**max. 0.1ppm**
Any impurity	**max. 0.1%**	Os (Osmium)	**max. 0.1ppm**
Total impurities	**max. 0.2%**	Pd (Palladium)	**max. 0.1ppm**
Water (KF)	**max. 0.5%w/w**	Pt (Platinum)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Rh (Rhodium)	**max. 0.1ppm**
Refractive index (20/D)	**1.376-1.378**	Ru (Ruthenium)	**max. 0.1ppm**
Specific gravity	**0.783-0.787**	V (Vanadium)	**max. 0.1ppm**
Cr (Chromium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Cu (Copper)	**max. 0.1ppm**		

Cat. No. 162604

2-Propanol

FCC / Food grade

Identification	**Passes FCC test**	Water (KF)	**max. 0.2%w/w**
Appearance	**Clear colorless liquid**	As (Arsenic)	**max. 3ppm**
Acidity (as Acetic acid)	**max. 0.001%**	Cd (Cadmium)	**max. 1ppm**
Color (APHA)	**max. 10**	Hg (Mercury)	**max. 1ppm**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Pb (Lead)	**max. 1ppm**
Solubility (20% in Water)	**Clear colorless solution**	Specific gravity	**max. 0.7840**
Residue after evaporation	**max. 0.001%w/w**	Distillation range	**Passes FCC test**
Subs. reducing $KMnO_4$	**Passes FCC test**		

Cat. No. 162659

2-Propanol

Supra dry

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.8%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.005%w/w**

Cat. No. 162647

2-Propanol

Extra dry

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.8%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.01%w/w**

Cat. No. 162653

2-Propanol

Extra dry / M. sieves

Acidity (as Acetic acid)	**max. 0.002%**
Assay (GC, on anhydrous basis)	**min. 99.8%**
Residue after evaporation	**max. 0.001%w/w**
Water (KF)	**max. 0.01%w/w**

Cat. No. 162633

2-Propanol

Peptide synthesis

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.05%w/w**
Peroxides	**Not detected**	Fe (Iron)	**max. 0.1ppm**
Color (APHA)	**max. 10**	Mg (Magnesium)	**max. 0.1ppm**
Free Amines (Kaiser)	**max. 0.001%**	Pb (Lead)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 162623

2-Propanol

Molecular biology

Appearance	**Clear colorless liquid**	Heavy metals (as Pb)	**max. 0.0001%**
Acidity (as Acetic acid)	**max. 0.003%**	Iron (Fe)	**max. 0.0001%**
Color (APHA)	**max. 10**	Nickel (Ni)	**max. 0.0001%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	DNase activity	**Not detected**
Residue after evaporation	**max. 0.0005%w/w**	RNase activity	**Not detected**
Water (KF)	**max. 0.05%w/w**	Protease activity	**Not detected**
Copper (Cu)	**max. 0.0001%**		

Cat. No. 162602

2-Propanol

CP

Color (APHA)	**max. 15**
Assay (GC, on anhydrous basis)	**min. 99.5%**
Residue after evaporation	**max. 0.003%w/w**
Water (KF)	**max. 0.2%w/w**

2-Propanol 70%

CAS [67-63-0]; EC 200-661-7; C_3H_8O; M 60.1

Danger H:225-319-336; P:210-241-303+361+353-305+351+338-405-501

Cat. No. 162805

2-Propanol 70%

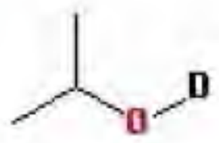
AR

Appearance	**Clear colorless liquid**	Purity (GC, on anhydrous basis)	**min. 99.8%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.0005%w/w**
Alkalinity (as Ammonia)	**max. 0.0003%**	Assay (IPA)	**68-72%v/v**
Color (APHA)	**max. 10**	Methanol	**max. 0.01%**
Relative density (20°C)	**0.872-0.880**	Benzene	**max. 0.0002%v/v**
Butanol	**max. 0.01%**	Acetone	**max. 0.01%**

2-Propanol-d1, 98 atom%D

CAS [3979-51-9]; EC 223-616-3; C_3H_7DO; M 61.10

Warning; H:226; P:210-240-241-280-303+361+353-501



Cat. No. 317895

2-Propanol-d1, 98 atom%D

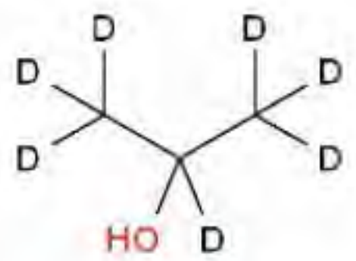
For NMR

Enrichment (NMR)	**min. 98Atom%D**
Water (KF)	**max. 0.1% H_2O+D_2O**

2-Propanol-d7, 99.5 atom%D

CAS [19214-96-1]; C_3HD_7O; M 67.16; D 0.88

Warning; H:226; P:210-240-241-280-303+361+353-501



Cat. No. 317995

2-Propanol-d7, 99.5 atom%D

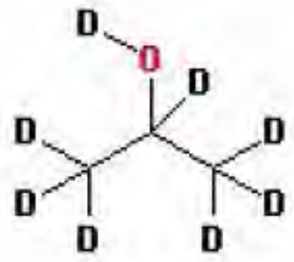
For NMR

Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.1% H_2O+D_2O**

2-Propanol-d8, 99.5 atom%D

CAS [22739-76-0]; EC 245-189-2; D_8C_3O; M 68.16
D 0.89; b.p. 82 °C; UN 1219,3,II,F1;

Warning; H:226; P:210-240-241-280-303+361+353-501



Cat. No. 318095

2-Propanol-d8, 99.5 atom%D

For NMR

Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.05% H_2O+D_2O**

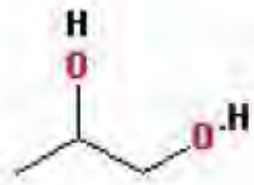
Propylene glycol

Synonym: *1,2-Propanediol*

CAS [57-55-6]; EC 200-338-0; $C_3H_8O_2$; M 76.09

D 1.03; m.p. -60 °C; b.p. 187 °C;

Warning; H:302; P:264-270-301+312-330



Cat. No. 162005 ***Propylene glycol AR***

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.2%w/w**
Color (APHA)	**max. 10**	Acidity (as Acetic acid)	**max. 0.003%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Residue after ignition	**max. 0.005%**
Reducing substances	**Passes test**	Chloride (Cl)	**max. 0.0001%**

Cat. No. 162036 ***Propylene glycol Meets USP spec.***

Appearance	**Clear colorless liquid**	Residue after ignition	**max. 0.007%**
Identification A	**IR Corresponds**	Chloride (Cl)	**max. 0.007%**
Identification C	**RT by GC Corresponds**	Sulfate (SO4)	**max. 0.006%**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Heavy metals (as Pb)	**max. 0.0005%**
Acidity (0.1M NaOH)	**max. 0.20ml**	Diethylene glycol	**max. 0.10%w/w**
Specific gravity	**1.035-1.037**	Ethylene glycol	**max. 0.10%w/w**
Water (KF)	**max. 0.2%w/w**		

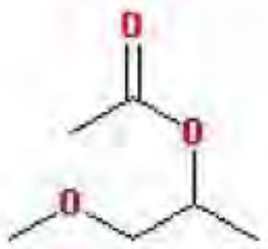
Propylene glycol monomethyl ether acetate

Synonym: *1,2-Propanediol monomethyl ether acetate, 1-Methoxy-2-propyl acetate, PGMEA, Propylene glycol methyl ether acetate*

CAS [108-65-6]; EC 203-603-9; $C_6H_{12}O_3$; M 132.15

D 0.97; m.p. -67 °C; b.p. 146 °C; UN 3272,3,III,F1

Warning; H:226-319; P:210-240-241-280-303+361+353



Cat. No. 170743 ***Propylene glycol monomethyl ether acetate XLSI***

Color (APHA)	**max. 10**	Ge (Germanium)	**max. 1ppb**
Assay (GC, on anhydrous basis)	**min. 99.5%**	K (Potassium)	**max. 1ppb**
Water (KF)	**max. 0.05%w/w**	Li (Lithium)	**max. 1ppb**
Density (20/4°C)	**0.966-0.970gr/ml**	Mg (Magnesium)	**max. 1ppb**
Residue after evaporation	**max. 0.0005%w/w**	Mn (Manganese)	**max. 1ppb**
Chloride (Cl)	**max. 1ppm**	Mo (Molybdenum)	**max. 1ppb**
Ag (Silver)	**max. 1ppb**	Na (Sodium)	**max. 2ppb**
Al (Aluminum)	**max. 1ppb**	Ni (Nickel)	**max. 1ppb**
As (Arsenic)	**max. 1ppb**	No (Nobelium)	**max. 1ppb**
Au (Gold)	**max. 1ppb**	Pb (lead)	**max. 1ppb**
B (Boron)	**max. 1ppb**	Sb (Antimony)	**max. 1ppb**
Ba (Barium)	**max. 1ppb**	Sn (Tin)	**max. 1ppb**
Be (Beryllium)	**max. 1ppb**	Sr (Strontium)	**max. 1ppb**
Bi (Bismuth)	**max. 1ppb**	Ta (Tantalum)	**max. 1ppb**
Ca (Calcium)	**max. 1ppb**	Ti (Titanium)	**max. 1ppb**
Cd (Cadmium)	**max. 1ppb**	Tl (Thallium)	**max. 1ppb**
Co (Cobalt)	**max. 1ppb**	V (Vanadium)	**max. 1ppb**
Cr (Chromium)	**max. 1ppb**	Zn (Zinc)	**max. 1ppb**
Cu (Copper)	**max. 1ppb**	Zr (Zirconium)	**max. 1ppb**
Fe (Iron)	**max. 1ppb**	Particle count > 0.5um	**max. 30P/ml**
Ga (Gallium)	**max. 1ppb**		

Cat. No. 170799

Propylene glycol monomethyl ether acetate

General reagent

Appearance	**Clear liquid**	Water (KF)	**max. 0.5%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Color (APHA)	**max. 25**
2-Methoxypropylacetate	**max. 0.5%**	Turbidity	**max. 1NTU**
Density (20/4°C)	**0.96-0.98gr/ml**		

Microposit EC solvent

Proteinase K

Synonym: *Endopeptidase K*

CAS [39450-01-6]; EC 254-457-8;

Danger H:315-319-334-335; P:261-285-305+351+338-321

Cat. No. 167323

Proteinase K

Molecular biology

Application: Widely used in DNA and RNA purification and also is used for specific peptide cleaving of surface proteins, glycoproteins and for the characterization of protein fragments produced for structure and function research studies.

Appearance	**White Lyophilisate**
Specific Activity (37°C, Hemoglobin)	**30-70U/mg mat.**
DNase activity	**Not detected**
RNase activity	**Not detected**

PyBOP®

Synonym: *(Benzotriazol-1-yloxy)tripyrrolidinophosphonium hexafluorophosphate*

CAS [128625-52-5]; $C_{18}H_{28}F_6N_6OP_2$; M 520.39; m.p. 145-160 °C

Warning; H:315-319-335; P:261-280-305+351+338

Cat. No. 308433

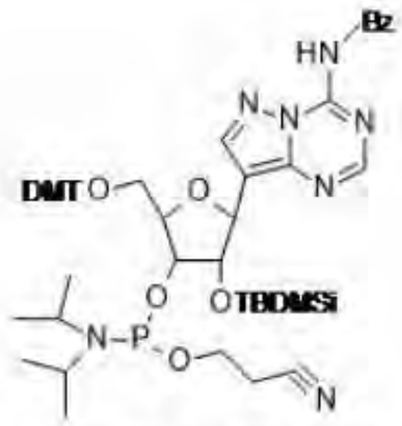
PyBOP®

Peptide synthesis

Appearance	**White to off-white powder**
Purity (HPLC)	**min. 99%**
Water (KF)	**max. 1%w/w**
Solubility (0.3g in 2ml DMF)	**Clear solution**

Pyrazolotriazine Adenosine phosphoramidite

$C_{53}H_{66}N_7O_8PSi$; M 988.2;



Cat. No. 461224

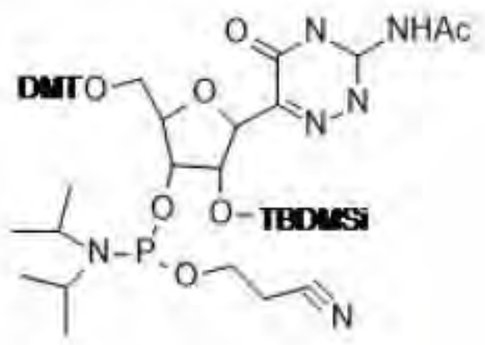
Pyrazolotriazine Adenosine phosphoramidite

DNA synthesis

Appearance Assay	**White to off white solid**
(HPLC) NMR H^1	**min. 90%**
spectrum	**Conforms with structure**
NMR P^{31} spectrum	**Conforms with structure**
Solubility (0.1M in ACN)	**Complete, clear**

Pyrazolotriazine-Cytidine phosphoramidite

$C_{46}H_{65}N_6O_9PSi$; M 905.1;



Cat. No. 463524

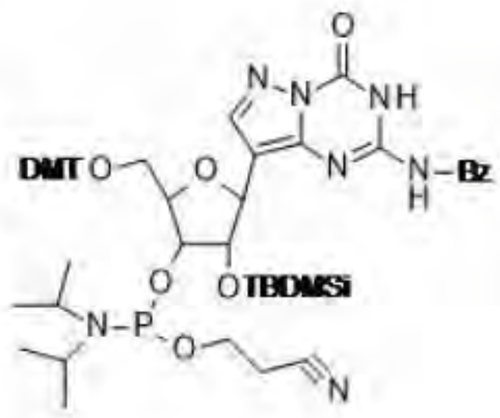
Pyrazolotriazine-Cytidine phosphoramidite

DNA synthesis

Assay (HPLC)	**min. 90%**
NMR H^1 spectrum	**Conforms with structure**
NMR P^{31} spectrum	**Conforms with structure**

Pyrazolotriazine-Guanosine phosphoramidite

$C_{53}H_{66}N_7O_9PSi$; M 1004.2;



Cat. No. 463424

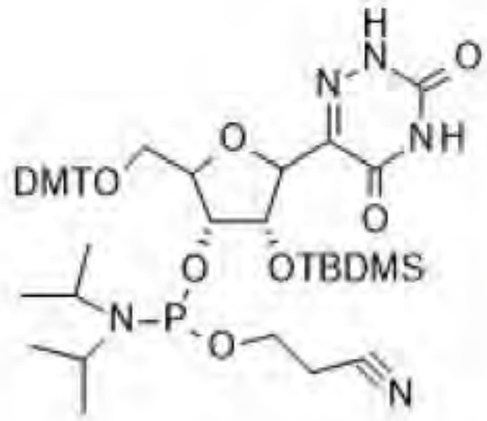
Pyrazolotriazine-Guanosine phosphoramidite

DNA synthesis

Assay (HPLC)	**min. 90%**
NMR H^1 spectrum NMR	**Conforms with structure**
P^{31} spectrum Solubility	**Conforms with structure**
(0.1M in ACN)	**Complete, clear**

Pyrazolotriazine-Uridine phosphoramidite

$C_{44}H_{60}N_5O_9PSi$; M 862.03;



Cat. No. 463624

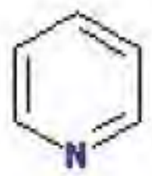
Pyrazolotriazine-Uridine phosphoramidite

DNA synthesis

Assay (HPLC)	**min. 90%**
NMR H^1 spectrum NMR	**Conforms with structure**
P^{31} spectrum	**Conforms with structure**
Solubility (0.1M in ACN)	**Complete, clear**

See also DNA & RNA synthesis section, p. 363-418

Pyridine



CAS [110-86-1]; EC 203-809-9; C_5H_5N; M 79.10

D 0.98; m.p. -42 °C; b.p. 115-116 °C; UN 1282,3,II,F1

Danger H:225-302-312-332; P:210-241-261-280-303+361+353

Cat. No. 162506 ***Pyridine*** ***HPLC***

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.03%w/w**
Color (APHA)	**max. 10**	T310nm	**min. 65%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T320nm	**min. 85%**
Residue after evaporation	**max. 0.0005%w/w**	T340nm	**min. 98%**

Cat. No. 162536 ***Pyridine*** ***Spectrofluopure***

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.03%w/w**
Color (APHA)	**max. 10**	T310nm	**min. 65%**
F365nm (as Quinine)	**max. 1ppb**	T320nm	**min. 85%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T340nm	**min. 98%**
Residue after evaporation	**max. 0.0005%w/w**		

Cat. No. 162505 ***Pyridine*** ***AR***

Color (APHA)	**max. 10**	Water (KF)	**max. 0.1%w/w**
Alkalinity (as Ammonia)	**max. 0.002%**	2-Picoline	**max. 0.2%**
Free Amines (Kaiser)	**max. 0.001%**	Piperidine	**max. 0.01%**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Chloride (Cl)	**max. 0.001%**
Residue after evaporation	**max. 0.001%w/w**	Copper (Cu)	**max. 0.0005%**
Subs. reducing $KMnO_4$	**Passes test**	Sulfate (SO_4)	**max. 0.001%**

Cat. No. 162551 ***Pyridine*** ***AR-S glass distilled***

Appearance	**Clear liquid**	Ca (Calcium)	**max. 0.5ppm**
Color (APHA)	**max. 10**	Cd (Cadmium)	**max. 0.05ppm**
Alkalinity (as Ammonia)	**max. 0.002%**	Co (Cobalt)	**max. 0.02ppm**
Free Amines (Kaiser)	**max. 0.001%**	Cr (Chromium)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Cu (Copper)	**max. 0.02ppm**
2-Picoline	**max. 0.2%**	Fe (Iron)	**max. 0.1ppm**
Piperidine	**max. 0.01%**	Mg (Magnesium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Mn (Manganese)	**max. 0.02ppm**
Subs. reducing $KMnO_4$	**Passes test**	Ni (Nickel)	**max. 0.02ppm**
Water (KF)	**max. 0.03%w/w**	Pb (Lead)	**max. 0.1ppm**
Al (Aluminum)	**max. 0.5ppm**	Sn (Tin)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Zn (Zinc)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**		

Cat. No. 162503

Pyridine

Meets EP/BP spec.

Appearance	**Clear liquid**	Fe (Iron)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Ir (Iridium)	**max. 0.1ppm**
Color (APHA)	**max. 15**	Mn (Manganese)	**max. 0.02ppm**
Alkalinity (as Ammonia)	**max. 0.001%**	Mo (Molybdenum)	**max. 0.1ppm**
2-Picoline	**max. 0.2%**	Ni (Nickel)	**max. 0.02ppm**
Piperidine	**max. 0.01%**	Os (Osmium)	**max. 0.1ppm**
Chloride (Cl)	**max. 0.0005%**	Pd (Palladium)	**max. 0.1ppm**
Sulfate (SO_4)	**max. 0.0005%**	Pt (Platinum)	**max. 0.1ppm**
Reducing substances (as O)	**max. 0.001%**	Rh (Rhodium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.002%w/w**	Ru (Ruthenium)	**max. 0.1ppm**
Water (KF)	**max. 0.1%w/w**	V (Vanadium)	**max. 0.1ppm**
Cr (Chromium)	**max. 0.05ppm**	Zn (Zinc)	**max. 0.1ppm**
Cu (Copper)	**max. 0.1ppm**		

Cat. No. 162548

Pyridine

HYDROQUANT for Karl Fischer analysis

Application: Neutralizing base for strong acidic samples.

Assay (GC, on anhydrous basis)	**min. 99.8%**
Residue after evaporation	**max. 0.001%w/w**
Alkalinity (as Ammonia)	**max. 0.005%**
Water (KF)	**max. 0.01%w/w**

Cat. No. 162559

Pyridine

Supra dry

Color (APHA)	**max. 10**	Subs. reducing $KMnO_4$	**Passes test**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Water (KF)	**max. 0.005%w/w**
Residue after evaporation	**max. 0.001%w/w**		

Cat. No. 162547

Pyridine

Extra dry

Color (APHA)	**max. 10**	Subs. reducing $KMnO_4$	**Passes test**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Water (KF)	**max. 0.01%w/w**
Residue after evaporation	**max. 0.001%w/w**		

Cat. No. 162533

Pyridine

Peptide synthesis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.02%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Fe (Iron)	**max. 0.1ppm**
Free Amines (Kaiser)	**max. 0.001%**	Mg (Magnesium)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Pb (Lead)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Zn (Zinc)	**max. 0.1ppm**
Reducing substances (as O)	**max. 0.001%**		

Cat. No. 162502

Pyridine

CP

Assay (GC, on anhydrous basis)	**min. 99%**
Residue after evaporation	**max. 0.005%w/w**
Water (KF)	**max. 0.2%w/w**
Appearance	**Clear liquid**

Pyridine-d5, 100 atom%D

CAS [7291-22-7]; EC 230-720-2; D_5C_5N; M 84.13

D 1.05; m.p. -41 °C; b.p. 114.4 °C; UN 1282,3,II,F1

Danger H:225-302-312-332; P:210-241-261-303+361+353-501

Cat. No. 318395 ***Pyridine-d5, 100 atom%D***

For NMR

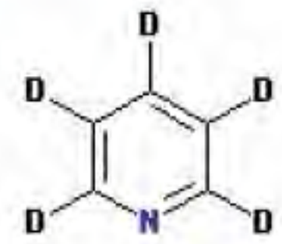
Enrichment (NMR)	**min. 99.95Atom%D**
Water (KF)	**max. 0.02% H_2O+D_2O**

Pyridine-d5, 99.8 atom%D

CAS [7291-22-7]; EC 230-720-2; D_5C_5N; M 84.13

D 1.05; m.p. -41 °C; b.p. 114.4 °C; UN 1282,3,II,F1

Danger H:225-302-312-332; P:210-241-261-303+361+353-501



Cat. No. 318295 ***Pyridine-d5, 99.8 atom%D***

For NMR

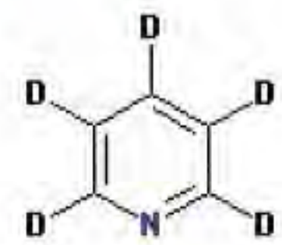
Enrichment (NMR)	**min. 99.8Atom%D**
Water (KF)	**max. 0.03% H_2O+D_2O**

Pyridine-d5, 99.5 atom%D

CAS [7291-22-7]; EC 230-720-2; D_5C_5N; M 84.13

D 1.05; m.p. -41 °C; b.p. 114.4 °C; UN 1282,3,II,F1

Danger H:225-302-312-332; P:210-241-261-303+361+353-501



Cat. No. 318195 ***Pyridine-d5, 99.5 atom%D***

For NMR

Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.05% H_2O+D_2O**

Pyrrole

Synonym: Imidole, Divinylenimine, Azole,

CAS [109-97-7]; EC 203-724-7; C_4H_5N; M 67.09

D 0.97; m.p. -24 °C; b.p. 131 °C; UN 1993,3,III,F1

Danger H:226-301-332; P:210-241-301+310-303+361+353

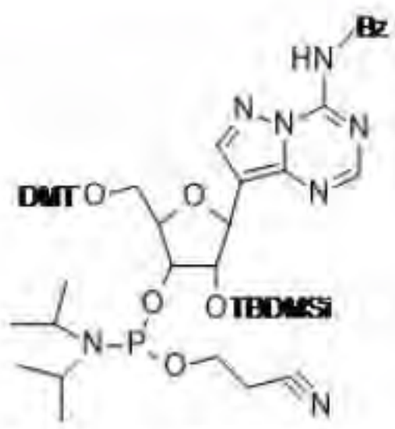
Cat. No. 166605 ***Pyrrole***

AR

Appearance	**Transparent**	A350nm	**max. 0.5AU**
Assay (GC, on anhydrous basis)	**min. 99.8%**	A500nm	**max. 0.05AU**
Iron (Fe)	**max. 0.5ppm**		
Refractive index (20/D)	**1.5060-1.5110**		
Water (KF)	**max. 0.1%w/w**		
Chloride (Cl)	**max. 0.5ppm**		

Ribo-Pyrazolotriazine Adenosine phosphoramidite

$C_{53}H_{66}N_7O_8PSi$; M 988.2;



Cat. No. 461224

Ribo-Pyrazolotriazine Adenosine phosphoramidite

DNA synthesis

Appearance Assay (HPLC) NMR H^1 spectrum	**White to off white solid** **min. 90%** **Conforms with structure**
NMR P^{31} spectrum	**Conforms with structure**
Solubility (0.1M in ACN)	**Complete, clear**

RNase remover spray

Cat. No. 183123

RNase remover spray

Molecular biology

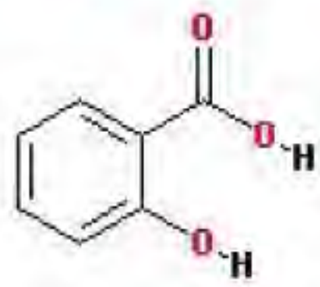
Application: RNase Remover Spray is a cleaning agent for the removal of RNase contamination from glass and plastic surfaces. It is effective for cleaning work areas, pipettors and equipment that must be RNase-free, e.g. at eliminating RNase contamination from microcentrifuge tubes without interfering in subsequent enzymic reactions.

Appearance of solution	**Clear foamy liquid**	RNase activity	**Not detected**
Performance of spray	**Passes test**	Protease activity	**Not detected**
Composition	**Complies**		
DNase activity	**Not detected**		

Salicylic acid

Synonym: *2-Hydroxybenzoic acid*

CAS [69-72-7]; EC 200-712-3; $C_7H_6O_3$; M 138.12



Danger H:302-315-318-335; P:261-305+351+338-310-405-501

Cat. No. 172305

Salicylic acid

AR

Appearance	**Colorless to white soild**	Heavy metals (as Pb)	**max. 0.0005%**
Assay (T)	**99.0-101.0%w/w**	Iron (Fe)	**max. 0.0002%**
Subs. darkened by Sulfuric Acid	**Passes ACS test**	Sulfate (SO_4)	**max. 0.003%**
Residue after ignition	**max. 0.01%**		
Chloride (Cl)	**max. 0.001%**		

Cat. No. 172348

Salicylic acid

HYDROQUANT for Karl Fischer analysis

Application: Neutralizing acid for strong basic samples.

Appearance	**Colorless or white solid**
Assay (T)	**min. 99.0%w/w**
Melting point	**158.0-161.0°C**
Loss on drying (105°C)	**max. 0.3%**

Silica gel 60A, 0.032-0.063mm, Flash

Synonym: *Silica, Silicon dioxide*

CAS [7631-86-9]; EC 231-545-48; O_2Si; M 60.08

P:260

Cat. No. 199381

Silica gel 60A, 0.032-0.063mm, Flash

Forchromatography

Appearance	**White to slightly gray solid**	Under size particals	**max. 10%**
pH (10% in Water)	**6.0-7.5**	Over size particals	**max. 10%**
Particle size	**0.032-0.063mm**		

Silica gel 60A, 0.040-0.063mm, Flash

Synonym: *Silica, Silicon dioxide*

CAS [7631-86-9]; EC 231-545-48; O_2Si; M 60.08

P:260

Cat. No. 199981

Silica gel 60A, 0.040-0.063mm, Flash

Forchromatography

Appearance	**White to slightly gray solid**	Under size particals	**max. 10%**
pH (10% in Water)	**6.5-7.5**	Over size particals	**max. 10%**
Particle size	**0.040-0.063mm**		

Silica gel 60A, 0.063-0.2mm, Gravitational

Synonym: *Silica, Silicon dioxide*

CAS [7631-86-9]; EC 231-545-4; O_2Si; M 60.08

P:260

Cat. No. 199181

Silica gel 60A, 0.063-0.2mm, Gravitational

Forchromatography

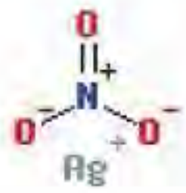
Appearance	**White to slightly gray solid**	Under size particals	**max. 5%**
pH (10% in Water)	**6.0-7.5**	Over size particals	**max. 5%**
Particle size	**0.063-0.2mm**		

Silver nitrate

CAS [7761-88-8]; EC 231-853-9; $AgNO_3$; M 169.87

m.p. 212 °C; b.p. 444 °C; UN 1493,5.1,II,O2;

Danger H:272-314-410; P:221-303+361+353-305+351+338-310-405



Cat. No. 191499

Silver nitrate

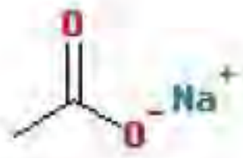
General reagent

Appearance	**White crystalline matter**
Water insolubles	**max. 0.005%**
Assay (T, argen.)	**99-101%w/w**
Nitrite (NO2)	**max. 0.001%**

Sodium acetate anhydrous

Synonym: *Acetic acid sodium salt*

CAS [127-09-3]; EC 204-823-8; $C_2H_3NaO_2$; M 82.03



Cat. No. 190205

Sodium acetate anhydrous

AR

Appearance	**White to off-white solid**	Sulfate (SO_4)	**max. 0.003%**
pH (5% in water)	**7.0-9.2**	Calcium (Ca)	**max. 0.005%**
Assay (T, dry)	**99.0-101.0%w/w**	Magnesium (Mg)	**max. 0.002%**
Water insolubles	**max. 0.01%**	Heavy metals (as Pb)	**max. 0.001%**
Loss on drying (120°C)	**max. 1.0%**	Iron (Fe)	**max. 0.001%**
Chloride (Cl)	**max. 0.002%**		
Phosphate (PO_4)	**max. 0.001%**		

Cat. No. 190223

Sodium acetate anhydrous

Molecular biology

Application: Widely used in extraction and purification procedures of nucleic acids. Commonly added to DNA reactions to facilitate ethanol precipitation of the DNA.

Appearance	**White to off-white solid**	Heavy metals (as Pb)	**max. 0.001%**
Assay (T, dry)	**99-101%w/w**	Iron (Fe)	**max. 0.001%**
pH (5% in water)	**7.0-9.2**	Phosphate (PO_4)	**max. 0.001%**
Loss on drying (105°C)	**max. 1%**	DNase activity	**Not detected**
Water insolubles	**max. 0.01%**	RNase activity	**Not detected**
A260nm (0.1M)	**max. 0.01AU**	Protease activity	**Not detected**
A280nm (0.1M)	**max. 0.01AU**		
Chloride (Cl)	**max. 0.002%**		

Cat. No. 190202

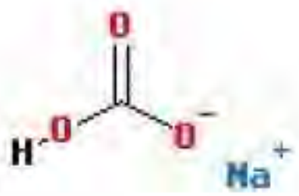
Sodium acetate anhydrous

CP

Appearance	**White to slightly gray solid**	pH (5% in water)	**7.5-9.2**
Chloride (Cl)	**max. 0.02%**	Assay (T, dry)	**98-102%w/w**
Loss on drying (105°C)	**max. 1%**		

Sodium bicarbonate

CAS [144-55-8]; EC 205-633-8; $CHNaO_3$; M 84.0



Cat. No. 192905

Sodium bicarbonate

AR

Appearance	**White crystalline powder**	Iron (Fe)	**max. 0.001%**
Assay (T)	**99.7-100.3%w/w**	Phosphate (PO_4)	**max. 0.001%**
Ammonium (NH4)	**max. 0.0005%**	Potassium (K)	**max. 0.005%**
Chloride (Cl)	**max. 0.003%**	Magnesium (Mg)	**max. 0.005%**
Calcium (Ca)	**max. 0.02%**	Sulfate (SO_4)	**max. 0.003%**
Heavy metals (as Pb)	**max. 0.0005%**	Insoluble matter	**max. 0.015%**

Cat. No. 192903

Sodium bicarbonate

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Calcium (Ca)	**max. 0.01%**
Identification B	**Passes EP/BP test**	Carbonates (pH 5% in water)	**7-8.6**
Identification C	**Passes EP/BP test**	Chloride (Cl)	**max. 0.015%**
Appearance	**White crystalline powder**	Heavy metals (as Pb)	**max. 0.001%**
Appearance of solution	**Clear colorless solution**	Iron (Fe)	**max. 0.002%**
Assay (T)	**99.0-101.0%w/w**	Sulfate (SO_4)	**max. 0.015%**
Ammonium (NH4)	**max. 0.002%**	Solubility in Alcohol	**Practically insoluble**
Arsenic (As)	**max. 0.0002%**		

Cat. No. 192936

Sodium bicarbonate

Meets USP spec.

Identification A	**Passes USP test**	Aluminum (Al)	**max. 0.0001%**
Identification B	**Passes USP test**	Arsenic (As)	**max. 0.0002%**
Assay (T)	**99.0-100.5%w/w**	Calcium (Ca)	**max. 0.01%**
Water insolubles	**Complete and clear (1g/20ml)**	Copper (Cu)	**max. 0.0001%**
		Iron (Fe)	**max. 0.0005%**
Normal carbonate	**Passes USP test**	Magnesium (Mg)	**max. 0.004%**
Chloride & Sulfate	**max. 0.015%**	Loss on drying (desiccator)	**max. 0.25%**
Limit of organics	**max. 0.01%**	Residual solvents	**Meets the requirements**
Limit of sulfur compounds	**max. 0.01%**		

Cat. No. 192902

Sodium bicarbonate

CP

Appearance	**White crystalline powder**
Iron (Fe)	**max. 0.01%**
Assay (T)	**98-102%w/w**

Sodium caprylate

Synonym: *Sodium octanoate; Caprylic acid sodium salt, Octanoic acid sodium salt.*

CAS [1984-06-1]; EC 217-850-5; $C_8H_{15}NaO_2$; M 166.19

Warning; H:315-319; P:264-280-303+361+353-332+313-337+313

Cat. No. 184564

Sodium caprylate

Meets ACS/EP/BP/USP spec.

Appearance	**White to almost white solid**	Total impurities	**max. 0.5%**
		pH (10% in Water)	**8.0-10.5**
Identification A	**Meets the requirements**	Water (KF)	**max. 3.0%w/w**
Identification B	**Meets the requirements**	Appearance of solution	**Meets the requirements**
Assay (T, dry)	**99.0-101.0%w/w**	Endotoxin activity	**max. 0.02EU/mg**
Purity (GC)	**min. 99.5%**	Residual solvents	**Exluded by manuf. process**
Any impurity	**max. 0.3%**		

Sodium carbonate

Synonym: *Sodium hydrogen carbonate*

CAS [497-19-8]; EC 207-838-8; CNa_2O_3; M 105.98

Warning; H:319; P:264-280-305+351+338-337+313

Specification continues on the next page

Cat. No. 192802

Sodium carbonate

CP

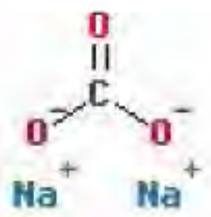
Appearance	**White powder**	Chloride (Cl)	**max. 0.01%**
Assay (T, dry)	**98.0-102.0%w/w**	Iron (Fe)	**max. 0.001%**
Loss on heating at 285°C	**max. 15.0%**	Heavy metals (as Pb)	**max. 0.001%**
Insoluble matter	**max. 0.01%**		

Sodium carbonate anhydrous

Synonym: *Sodium hydrogen carbonate*

CAS [497-19-8]; EC 207-838-8; CNa_2O_3; M 105.99

Warning; H:319; P:264-280-305+351+338-337+313



Cat. No. 190405

Sodium carbonate anhydrous

AR

Appearance	**White solid**	Iron (Fe)	**max. 0.0005%**
Assay (T)	**99.5-100.5%w/w**	Calcium (Ca)	**max. 0.03%**
Loss on heating at 285°C	**max. 1.0%**	Magnesium (Mg)	**max. 0.005%**
Insoluble matter	**max. 0.01%**	Potassium (K)	**max. 0.005%**
Chloride (Cl)	**max. 0.001%**	Sulfur compounds (as SO_4)	**max. 0.003%**
Heavy metals (as Pb)	**max. 0.0005%**		

Cat. No. 190402

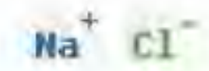
Sodium carbonate anhydrous

CP

Appearance	**White powder**
Iron (Fe)	**max. 0.002%**
Loss on drying (130°C)	**max. 1%**
Assay (T)	**min. 99%w/w**

Sodium chloride

CAS [7647-14-5]; EC 231-598-3; ClNa; M 58.44



Cat. No. 190305

Sodium chloride

AR

Appearance	**White crystalline powder**	Sulfate (SO_4)	**max. 0.004%**
Assay (T, dry)	**99.5-100.5%**	Barium (Ba)	**Passes test**
pH (5% in water)	**5.0-9.0**	Heavy metals (as Pb)	**max. 0.0005%**
Water insolubles	**max. 0.005%**	Iron (Fe)	**max. 0.0002%**
Iodides (I)	**max. 0.002%**	Calcium (Ca)	**max. 0.002%**
Bromides (Br)	**max. 0.005%**	Magnesium (Mg)	**max. 0.001%**
Chlolrate & Nitrate (as NO_3)	**max. 0.003%**	Potassium (K)	**max. 0.005%**
Phosphate (PO_4)	**max. 0.0005%**		

Cat. No. 190303

Sodium chloride

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Ferrocyanides	**Passes EP/BP test**
Identification B	**Passes EP/BP test**	Heavy metals (as Pb)	**max. 0.0005%**
Appearance	**White crystalline powder**	Iodide (I)	**Passes EP/BP test**
Appearance of solution	**Clear colorless solution**	Iron (Fe)	**max. 0.0002%**
Acidity or Alkalinity	**Passes EP/BP test**	Nitrites (A354nm, 10% in water)	**max. 0.01AU**
Assay (T, dry)	**99.0-100.5%**	Magnesium and Alkaline earth metals	**max. 0.01%**
Aluminum (Al)	**max. 0.00002%**	Phosphate (PO_4)	**max. 0.0025%**
Arsenic (As)	**max. 0.0001%**	Potassium (K)	**max. 0.05%**
Barium (Ba)	**Passes EP/BP test**	Sulfate (SO_4)	**max. 0.02%**
Bromides (Br)	**max. 0.005%**	Loss on drying (105°C)	**max. 0.5%**

Cat. No. 190336

Sodium chloride

Meets USP spec.

Appearance	**White crystalline powder**	Magnesium and Alkaline earth metals	**max. 0.01%**
Identification A	**Passes USP test**	Nitrites (A354nm, 10% in water)	**max. 0.01AU**
Identification B	**Passes USP test**	Phosphate (PO_4)	**max. 0.0025%**
Assay (T, dry)	**99.0-100.5%**	Potassium (K)	**max. 0.05%**
Aluminum (Al)	**max. 0.00002%**	Sulfate (SO_4)	**max. 0.020%**
Arsenic (As)	**max. 0.0001%**	Appearance of solution	**Clear & colorless sol. (20g/100ml)**
Barium (Ba)	**Passes USP test**	Acidity or Alkalinity	**Passes USP test**
Bromides (Br)	**max. 0.010%**	Loss on drying (105°C)	**max. 0.5%**
Ferrocyanides	**Passes USP test**	Endotoxin activity	**max. 0.5EU/ml**
Iodide (I)	**Passes USP test**	Residual solvents	**Meets the requirements**
Iron (Fe)	**max. 0.0002%**	Heavy metals (as Pb)	**max. 0.0005%**

Cat. No. 190323

Sodium chloride

Molecular biology

Appearance	**White crystalline matter**	Assay (T, dry)	**min. 99.8%**
Calcium (Ca)	**max. 0.005%**	Magnesium (Mg)	**max. 0.005%**
Iron (Fe)	**max. 0.0002%**	A260nm (0.1M)	**max. 0.01AU**
Iodides (I)	**max. 0.002%**	A280nm (0.1M)	**max. 0.01AU**
Sulfate (SO_4)	**max. 0.01%**	DNase activity	**Not detected**
Potassium (K)	**max. 0.005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
Phosphate (PO_4)	**max. 0.0005%**		

Cat. No. 190302

Sodium chloride

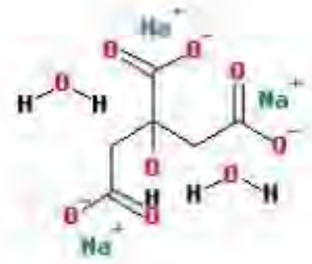
CP

Appearance	**White crystalline matter**
Assay (T, dry)	**min. 99%**

Tri-Sodium citrate dihydrate

Synonym: *Citric acid trisodium salt dihydrate, Sodium citrate tribasic dihydrate*

CAS [6132-04-3]; EC 200-675-3; $C_6H_5O_7Na_3x2H_2O$; M 294.10



Cat. No. 191205

Tri-Sodium citrate dihydrate

AR

Appearance	**White crystalline powder**	Iron (Fe)	**max. 0.0005%**
Assay (T)	**99-101%w/w**	Sulfate (SO_4)	**max. 0.005%**
Calcium (Ca)	**max. 0.005%**	Water (KF)	**11-13%w/w**
Chloride (Cl)	**max. 0.003%**	pH (5% in water)	**7-9**
Heavy metals (as Pb)	**max. 0.0005%**	Insoluble matter	**max. 0.005%**

Cat. No. 191264

Tri-Sodium citrate dihydrate

Meets ACS/EP/BP/USP spec.

Identification A	**Passes test for sodium**	Oxalate (C_2O_4)	**max. 0.03%**
Identification B	**Passes test for citrate**	Heavy metals (as Pb)	**max. 0.001%**
Identification C	**Passes USP test**	Sulfate (SO_4)	**max. 0.015%**
Assay (T)	**99.0-100.5%w/w**	Carbonisable substances	**Passes EP/BP test**
Appearance of solution	**Solution S is clear & colorless**	Tartarate	**Passes USP test**
		Water (KF)	**11.0-13.0%w/w**
Alkalinity	**Passes USP test**	Residual solvents	**Meets the requirements**
Acidity or Alkalinity	**Passes EP/BP test**		
Chloride (Cl)	**max. 0.005%**		

Cat. No. 191203

Tri-Sodium citrate dihydrate

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Chloride (Cl)	**max. 0.005%**
Identification B	**Passes EP/BP test**	Oxalate (C_2O_4)	**max. 0.03%**
Appearance	**White crystalline powder**	Heavy metals (as Pb)	**max. 0.001%**
Appearance of solution	**Solution S is clear & colorless**	Sulfate (SO_4)	**max. 0.015%**
		Water (KF)	**11-13%w/w**
Acidity or Alkalinity	**Passes EP/BP test**	Carbonisable substances	**Passes EP/BP test**
Assay (T)	**99.0-101.0%w/w**		

Cat. No. 191236

Tri-Sodium citrate dihydrate

Meets USP spec.

Identification A	**Passes USP test**	Heavy metals (as Pb)	**max. 0.001%**
Identification B	**Passes USP test**	Tartarate	**Passes USP test**
Appearance	**White crystalline powder**	Water (KF)	**10.0-13.0%w/w**
Assay (T)	**99.0-100.5%w/w**	Residual solvents	**Meets the requirements**

Cat. No. 191223

Tri-Sodium citrate dihydrate

Molecular biology

Application: Commonly used in the preparation of buffers for Northern and Southern hybridizations.

Appearance	**White crystalline powder**	Water (KF)	**11-13%w/w**
Chloride (Cl)	**max. 0.005%**	Assay (T)	**99-101%w/w**
Iron (Fe)	**max. 0.0005%**	A260nm (0.1M)	**max. 0.02AU**
Sulfate (SO_4)	**max. 0.015%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
pH (5% in water)	**7-9**	Protease activity	**Not detected**

Sodium dichromate anhydrous

Synonym: *Sodium bichromate*

CAS [10588-01-9]; EC 234-190-3; $Cr_2Na_2O_7$; M 261.97

Danger H:272-301-312-314-317-330-334-340-350-360-372-400-410

Cat. No. 192402

Sodium dichromate anhydrous

CP

Appearance	**Reddish to orange powder**	pH (10% in Water)	**3.0-4.5**
Chloride (Cl)	**max. 0.1%**	Assay	**min. 99%w/w**
Sulfate (SO_4)	**max. 0.5%**		

Sodium dodecyl sulfate

Synonym: *Dodecyl sodium sulfate, Dodecyl sulfate sodium salt, Lauryl sulfate sodium salt,SDS, Sodium lauryl sulfate*

CAS [151-21-3]; EC 205-788-1; $C_{12}H_{25}NaO_4S$; M 288.38

Danger H:228-302-311-315-319-335; P:210-241-305+351+338-361-405

Cat. No. 198205

Sodium dodecyl sulfate

AR

Appearance	**White solid**	Sodium chloride & sodium sulfate	**max. 8.0%w/w**
Assay (T, on dry basis)	**95.0-102.0%w/w**	Unsulfated alcohols	**max. 4.0%w/w**
Assay (Fatty alcohols, C12)	**min. 96.0%**	Loss on drying (105°C)	**max. 1.0%**
Alkalinity	**max. 0.06meq/gr**	A220-350nm (3%)	**max. 0.1AU**

Cat. No. 198264

Sodium dodecyl sulfate

Meets ACS/EP/BP/USP spec.

Appearance	**White to pale yellow solid**	Alkalinity	**max. 0.05meq/gr**
Identification A	**Meets the requirements**	Sodium chloride & sodium sulfate	**max. 8.0%w/w**
Identification B	**Meets the requirements**	Unsulfated alcohols	**max. 4.0%w/w**
Assay (T, on dry basis)	**85.0-105.0%w/w**	Total alcohols	**min. 59.0%w/w**

Cat. No. 198223

Sodium dodecyl sulfate

Molecular biology

Application: Commonly used detergent in protein purification and electrophoresis.

Appearance	**White matter**	Phosphate (PO_4)	**max. 0.0005%**
Color (10% in water)	**max. 10**	A260nm (0.1M)	**max. 0.1AU**
Assay (Fatty alcohols, C12)	**min. 99%**	A280nm (0.1M)	**max. 0.1AU**
Loss on drying (105°C)	**max. 1%**	DNase activity	**Not detected**
Chloride (Cl)	**max. 0.05%**	RNase activity	**Not detected**
Copper (Cu)	**max. 0.0005%**	Protease activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**		

Cat. No. 198202

Sodium dodecyl sulfate

CP

Appearance	**White to cream soild**
Assay (T, on dry basis)	**95-102%w/w**
Unsulfated alcohols	**max. 5%w/w**
Sodium chloride & sodium sulfate	**max. 8%w/w**

Sodium dodecyl sulfate 20%

Synonym: *Dodecyl sodium sulfate, Dodecyl sulfate sodium salt, Lauryl sulfate sodium salt,SDS, Sodium lauryl sulfate*

CAS [151-21-3]; EC 205-788-1; $C_{12}H_{25}NaO_4S$; M 288.38

Warning; H:312-315-319-335; P:261-305+351+338-405

Cat. No. 198123 ***Sodium dodecyl sulfate 20%***

Molecular biology

Appearance	**Clear colorless liquid**	A260nm (0.1M)	**max. 0.1AU**
Assay (T, on dry basis)	**19-21%w/w**	A280nm (0.1M)	**max. 0.1AU**
Chloride (Cl)	**max. 0.02%**	DNase activity	**Not detected**
Copper (Cu)	**max. 0.0005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
Phosphate (PO_4)	**max. 0.0005%**		

Sodium dodecyl sulfate 10%

Synonym: *Dodecyl sodium sulfate, Dodecyl sulfate sodium salt, Lauryl sulfate sodium salt,SDS, Sodium lauryl sulfate*

CAS [151-21-3]; EC 205-788-1; $C_{12}H_{25}NaO_4S$; M 288.38

Warning; H:315-319; P:280-305+351+338-321-332+313-337+313-362

Cat. No. 197964 ***Sodium dodecyl sulfate 10%***

Meets ACS/EP/BP/USP spec.

Appearance	**Clear liquid**	Sodium chloride & sodium sulfate	**max. 8.0%w/w**
Identification A	**Passes test**	Unsulfated alcohols	**max. 4.0%w/w**
Identification B	**Passes test**	Total alcohols	**min. 59.0%w/w**
Identification C	**Passes test**	Heavy metals (as Pb)	**max. 0.002%**
Identification D	**Passes test**	Residual solvents	**Meets the requirements**
Assay (T, on dry basis)	**9.0-11.0%w/w**	Organic volatile impurities	**Meets the requirements**
Alkalinity	**max. 0.06meq/gr**		

Cat. No. 197903 ***Sodium dodecyl sulfate 10%***

Meets EP/BP spec.

Appearance	**Clear liquid**	Alkalinity Unsulfated	**max. 0.05meq/gr**
Identification A	**Passes EP/BP test**	alcohols	**max. 4%w/w**
Identification B	**Passes EP/BP test**	Sodium chloride & sodium sulfate	**max. 8%w/w**
Identification C	**Passes EP/BP test**	Assay (T, on dry basis)	**9.5-10.5%w/w**
Identification D	**Passes EP/BP test**		

Cat. No. 197936 ***Sodium dodecyl sulfate 10%***

Meets USP spec.

Appearance	**Clear liquid**	Sodium chloride & sodium sulfate	**max. 8.0%w/w**
Identification A	**Passes USP test**	Unsulfated alcohols	**max. 4.0%w/w**
Identification B	**Passes USP test**	Total alcohols	**min. 59.0%w/w**
Assay (T, on dry basis)	**9.5-10.5%w/w**	Residual solvents	**Meets the requirements**
Alkalinity	**max. 0.05meq/gr**	Organic volatile impurities	**Meets the requirements**

Cat. No. 197923

Sodium dodecyl sulfate 10%

Molecular biology

Appearance	**Clear colorless liquid**	A260nm (0.1M)	**max. 0.1AU**
Assay (T, on dry basis)	**9.5-10.5%w/w**	A280nm (0.1M)	**max. 0.1AU**
Chloride (Cl)	**max. 0.01%**	DNase activity	**Not detected**
Copper (Cu)	**max. 0.0005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
Phosphate (PO_4)	**max. 0.0005%**		

Sodium dodecyl sulfate 2%

Synonym: *Dodecyl sodium sulfate. Dodecyl sulfate sodium salt. Lauryl sulfate sodium salt.SDS. Sodium lauryl sulfate*

CAS [151-21-3]; EC 205-788-1; $C_{12}H_{25}NaO_4S$; M 288.38

EUH:210;

Cat. No. 199023

Sodium dodecyl sulfate 2%

Molecular biology

Appearance	**Clear colorless liquid**	A260nm	**max. 0.5AU**
Assay (T, on dry basis)	**1.9-2.1%w/w**	A280nm	**max. 0.05AU**
Chloride (Cl)	**max. 0.01%**	DNase activity	**Not detected**
Copper (Cu)	**max. 0.0005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
Phosphate (PO_4)	**max. 0.0005%**		

Sodium hydroxide pearls

Synonym: *Caustic soda*

CAS [1310-73-2]; EC 215-185-5; NaOH; M 40

Danger H:314; P:260-303+361+353-305+351+338-310

Cat. No. 190805

Sodium hydroxide pearls

AR

Appearance	**White to off-white pearls**	Heavy metals (as Pb)	**max. 0.002%**
Assay (T, Total alkalinity)	**min. 99%w/w**	Sulfate (SO_4)	**max. 0.003%**
Carbonate (CO_3)	**max. 1.0%w/w**	Nickel (Ni)	**max. 0.001%**
Chloride (Cl)	**max. 0.005%**	Phosphate (PO_4)	**max. 0.001%**
Iron (Fe)	**max. 0.001%**	Calcium (Ca)	**max. 0.005%**
Potassium (K)	**max. 0.02%**	Magnesium (Mg)	**max. 0.002%**

Cat. No. 190864

Sodium hydroxide pearls

Meets ACS/EP/BP/USP spec.

Appearance	**White to off-white pearls**	Iron (Fe)	**max. 0.001%**
Identification A	**Passes EP/BP test**	Potassium (K)	**Passes USP test**
Identification B	**Passes EP/BP/USP test**	Sulfate (SO_4)	**max. 0.003%**
Assay (T, Total alkalinity)	**97.0-100.5%w/w**	Phosphate (PO_4)	**max. 0.001%**
Carbonate (CO_3)	**max. 1.0%w/w**	Nickel (Ni)	**max. 0.001%**
Appearance of solution	**Clear & colorless (10% solution)**	Calcium (Ca)	**max. 0.005%**
		Magnesium (Mg)	**max. 0.002%**
Insoluble substances and organic matter	**Passes USP test**	pH (0.01% in water)	**11-14**
		Residual solvents	**Meets the requirements**
Chloride (Cl)	**max. 0.005%**		
Heavy metals (as Pb)	**max. 0.002%**		

Cat. No. 190803

Sodium hydroxide pearls

Meets EP/BP spec.

Identification A	**Passes EP/BP test**	Heavy metals (as Pb)	**max. 0.002%**
Identification B	**Passes EP/BP test**	Sulfate (SO_4)	**max. 0.005%**
Appearance	**White to off-white pearls**	Assay (T, Total alkalinity)	**97.0-100.5%w/w**
Appearance of solution	**Clear & colorless (10% solution)**	Carbonate (CO_3)	**max. 2.0%w/w**
		pH (0.01% in water)	**11-14**
Chloride (Cl)	**max. 0.005%**		
Iron (Fe)	**max. 0.001%**		

Cat. No. 190836

Sodium hydroxide pearls

Meets USP spec.

Appearance	**White to off-white pearls**	Insoluble substances and organic matter	**Passes USP test**
Identification	**Passes USP test**	Potassium (K)	**Passes USP test**
Assay (T, Total alkalinity)	**95.0-100.5%w/w**	Residual solvents	**Meets the requirements**
Carbonate (CO_3)	**max. 3.0%w/w**		

Cat. No. 190823

Sodium hydroxide pearls

Molecular biology

Appearance	**White to off-white pearls**	Carbonate (CO_3)	**max. 1%w/w**
Iron (Fe)	**max. 0.001%**	A260nm (1M)	**max. 0.011AU**
Heavy metals (as Pb)	**max. 0.001%**	A280nm (1M)	**max. 0.006AU**
Assay (T, Total alkalinity)	**min. 99%w/w**		

Cat. No. 190802

Sodium hydroxide pearls

CP

Appearance	**White to off-white pearls**
Assay (T, Total alkalinity)	**min. 97%w/w**
Carbonate (CO_3)	**max. 2%w/w**

Sodium hydroxide 45-50% w/w

CAS [1310-73-2]; EC 215-185-5; NaOH; M 40

Danger H:314; P:260-303+361+353-305+351+338-310

Cat. No. 190902

Sodium hydroxide 45-50% w/w

CP

Appearance	**Clear/slight turbid viscous liquid**	Density (20/4°C)	**1.48-1.53gr/ml**
Carbonate (CO_3)	**max. 1%w/w**		
Assay (T, Total alkalinity)	**45-50%w/w**		

Sodium hydroxide 40% w/w

CAS [1310-73-2]; EC 215-185-5; NaOH; M 40.0

Danger H:314; P:260-303+361+353-305+351+338-310-405

Cat. No. 193002

Sodium hydroxide 40% w/w

CP

Appearance	**Clear/slight turbid viscous liquid**
Carbonate (CO_3)	**max. 1%w/w**
Assay (T, Total alkalinity)	**40-45%w/w**

Sodium hydroxide 25%w/w

CAS [1310-73-2]; EC 215-185-5; NaOH; M 40

Danger H:314; P:260-303+361+353-305+351+338-310-405

Cat. No 193105

Sodium hydroxide 25%w/w

AR

Appearance	**Clear/slight turbid viscous liquid**	Heavy metals (as Pb)	**max. 0.002%**
		Iron (Fe)	**max. 0.001%**
Assay (T, Total alkalinity)	**24-26%w/w**	Sulfate (SO_4)	**max. 0.005%**
Carbonate (CO_3)	**max. 1%w/w**		
Chloride (Cl)	**max. 0.005%**		

Cat. No. 193102

Sodium hydroxide 25%w/w

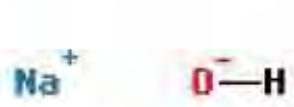
CP

Appearance	**Clear/slight turbid viscous liquid**
Assay (T, Total alkalinity)	**23-27%w/w**
Carbonate (CO_3)	**max. 1%w/w**

Sodium hydroxide 6.25N; 25%w/v

CAS [1310-73-2]; EC 215-185-5; NaOH; M 40

Danger H:314; P:260-303+361+353-305+351+338-310-405



Cat. No. 189705

Sodium hydroxide 6.25N; 25%w/v

AR

Appearance	**Clear/slight turbid viscous liquid**	Heavy metals (as Pb)	**max. 0.002%**
		Iron (Fe)	**max. 0.001%**
Assay (T, Total alkalinity)	**24.5-25.5%w/v**	Sulfate (SO_4)	**max. 0.005%**
Carbonate (CO_3)	**max. 1%w/v**		
Chloride (Cl)	**max. 0.005%**		

Sodium hydroxide 5N

CAS [1310-73-2]; EC 215-185-5; NaOH; M 40

Danger H:314; P:260-303+361+353-305+351+338-310-405

Cat. No. 308036

Sodium hydroxide 5N

Meets USP spec.

Appearance	**Clear solution**	Potassium (K)	**Passes USP test**
Identification	**Passes USP test**	Insoluble substances and organic matter	**Passes USP test**
Assay (T)	**4.9-5.1N**		
Carbonate (CO_3)	**max. 3%w/w**		

Sodium hypochlorite 4%

CAS [7681-52-9]; EC 231-668-3; NaClO; M 74.44

Danger H:315-318-400; EUH:031; P:280-305+351+338-310-321-362

Cat. No. 193464

Sodium hypochlorite 4%

Meets ACS/EP/BP/USP spec.

Appearance	**Clear yellow liquid**
Assay	**3.5-4.5%w/w**
Total alkalinity (NaOH)	**max. 1.0%w/w**

Cat. No. 193403

Sodium hypochlorite 4%

Meets EP/BP spec.

Appearance	**Clear yellow liquid**
Assay	**3.5-5.5%w/w**
Total alkalinity (NaOH)	**max. 1.8%w/w**

Prepared from conc. BP grade NaOCl.

Sodium hypochlorite 5%

CAS [7681-52-9]; EC 231-668-3; NaClO; M 74.44

Danger H:290-314-400; EUH:031; P:260-273-303+361+353-305+351+338-310-405

Cat. No. 193503

Sodium hypochlorite 5%

Meets EP/BP spec.

Appearance	**Clear yellow liquid**
Assay	**4-6%w/w**
Total alkalinity (NaOH)	**max. 1.8%w/w**

Prepared from conc. BP grade NaOCl.

Cat. No. 193536

Sodium hypochlorite 5%

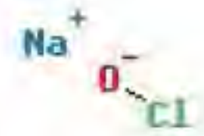
Meets USP spec.

Appearance	**Clear liquid**	Identification C	**Passes USP test**
Identification A	**Passes USP test**	Assay	**4.0-6.0%w/w**
Identification B	**Passes USP test**		

Sodium hypochlorite 6%

CAS [7681-52-9]; EC 231-668-3; NaClO; M 74.44

Danger H:290-314-400; EUH:031; P:260-273-303+361+353-305+351+338-310-405



Cat. No. 193664 ***Sodium hypochlorite 6%***

Meets ACS/EP/BP/USP spec.

Appearance	**Clear yellow liquid**
Assay	**5.5-7.5%w/w**
Total alkalinity (NaOH)	**max. 1.2%w/w**

Cat. No. 193603 ***Sodium hypochlorite 6%***

Meets EP/BP spec.

Appearance	**Clear yellow liquid**
Assay	**5.7-7.5%w/w**
Total alkalinity (NaOH)	**max. 1.8%w/w**

Sodium metabisulfite

Synonym: Sodium disulfite, Sodium pyrosulfite

CAS [7681-57-4]; EC 231-673-0; $Na_2O_5S_2$; M 190.11

Danger H:302-318; EUH:031; P:264-280-305+351+338-310

Cat. No. 194405 ***Sodium metabisulfite***

AR

Appearance	**White crystalline solid**	Iron (Fe)	**max. 0.002%**
Assay	**97.0-100.5%w/w**	Thiosulftate (S_2O_3)	**max. 0.05%**
Chloride (Cl)	**max. 0.05%**	Insoluble matter	**max. 0.005%**
Heavy metals (as Pb)	**max. 0.001%**		

Cat. No. 194464 ***Sodium metabisulfite***

Meets ACS/EP/BP/USP spec.

Appearance	**White crystalline solid**	Heavy metals (as Pb)	**max. 0.001%**
Assay	**97.0-100.5%w/w**	Iron (Fe)	**max. 0.002%**
Appearance of solution	**Clear and colorless sol. 5%**	Thiosulftate (S_2O_3)	**max. 0.05%**
		Thiosulftate (S_2O_3)	**Passes EP/BP test**
pH (5% in water)	**3.5-5.0**	Insoluble matter	**max. 0.005%**
Arsenic (As)	**max. 0.0005%**		
Chloride (Cl)	**max. 0.05%**		

Cat. No. 194402 ***Sodium metabisulfite***

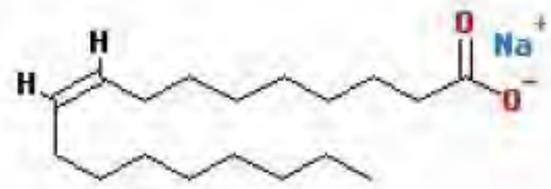
CP

Appearance	**White crystalline solid**	Heavy metals (as Pb)	**max. 0.002%**
Assay	**95.0-100.5%w/w**	Iron (Fe)	**max. 0.005%**
Chloride (Cl)	**max. 0.01%**		

Sodium oleate

Synonym: *cis-9-Octadecenoic acid sodium salt, Oleic acid sodium salt*

CAS [143-19-1]; EC 205-591-0; $C_{18}H_{33}NaO_2$; M 304.44



Cat. No. 194380

Sodium oleate

For synthesis

Appearance	**Colorless crystals**
Assay (T)	**min. 97%w/w**

Sodium phosphate dibasic anhydrous

Synonym: *Disodium hydrogen phosphate, sec-Sodium phosphate, Disodium phosphate, Sodium hydrogenphosphate*

CAS [7558-79-4]; EC 231-448-7; HNa_2O_4P; M 141.96

Cat. No. 194605

Sodium phosphate dibasic anhydrous

AR

Assay (T)	**99.0-101.0%w/w**	Chloride (Cl)	**max. 0.002%**
Water insolubles	**max. 0.01%**	Heavy metals (as Pb)	**max. 0.001%**
Loss on drying (105°C)	**max. 0.2%**	Iron (Fe)	**max. 0.002%**
pH (5% in water)	**8.7-9.3**	Sulfate (SO_4)	**max. 0.005%**

Cat. No. 194623

Sodium phosphate dibasic anhydrous

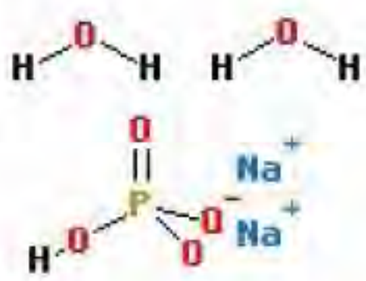
Molecular biology

Assay (T)	**99.0-101.0%w/w**	Iron (Fe)	**max. 0.002%**
pH (5% in water)	**8.7-9.3**	Sulfate (SO_4)	**max. 0.005%**
Loss on drying (105°C)	**max. 0.2%**	DNase activity	**Not detected**
Chloride (Cl)	**max. 0.003%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	Protease activity	**Not detected**

Sodium phosphate dibasic dihydrate

Synonym: *Disodium hydrogen phosphate, sec-Sodium phosphate, Disodium phosphate, Sodium hydrogenphosphate*

CAS [10028-24-7]; EC 231-448-7; $Na_2HPO_4 \times 2H_2O$; M 177.98



Cat. No. 194706

Sodium phosphate dibasic dihydrate

HPLC

Assay (T)	**min. 99.5%w/w**	pH (5% in water)	**8.7-9.3**
Loss on drying (105°C)	**max. 21%**	A230nm (0.5M)	**max. 0.03AU**
Chloride (Cl)	**max. 0.005%**	A280nm (0.5M)	**max. 0.02AU**
Heavy metals (as Pb)	**max. 0.001%**		

Cat. No. 194705

Sodium phosphate dibasic dihydrate

AR

Assay (T)	**99.0-101.0%w/w**	Chloride (Cl)	**max. 0.002%**
Water insolubles	**max. 0.01%**	Heavy metals (as Pb)	**max. 0.001%**
Loss on drying (105°C)	**19-21%**	Iron (Fe)	**max. 0.002%**
pH (5% in water)	**8.7-9.3**	Sulfate (SO_4)	**max. 0.005%**

Sodium phosphate monobasic dihydrate

Synonym: *Sodium dihydrogen phosphate dihydrate*

CAS [13472-35-0]; EC 231-449-2; $NaH_2PO_4 \times 2H_2O$; M 156.01

Cat. No. 195005

Sodium phosphate monobasic dihydrate

AR

Appearance	**White crystalline powder**	Arsenic (As)	**max. 0.0002%**
Assay (T)	**99.0-102.0%w/w**	Chloride (Cl)	**max. 0.005%**
pH (5% in water)	**4.2-4.5**	Heavy metals (as Pb)	**max. 0.001%**
Reducing substances	**Passes test**	Iron (Fe)	**max. 0.0005%**
Water insolubles	**max. 0.2%**	Sulfate (SO_4)	**max. 0.02%**
Loss on drying (130°C)	**21.5-24.0%**		

Sodium sulfate anhydrous

CAS [7757-82-6]; EC 231-820-9; Na_2SO_4; M 142.04

Cat. No. 194805

Sodium sulfate anhydrous

AR

Appearance	**White crystalline powder**	Magnesium (Mg)	**max. 0.005%**
Assay	**99.0-101.0%**	Phosphate (PO_4)	**max. 0.001%**
pH (5% in water)	**5.2-9.2**	Potassium (K)	**max. 0.01%**
Calcium (Ca)	**max. 0.01%**	Loss on ignition	**max. 0.5%**
Chloride (Cl)	**max. 0.001%**	Loss on drying (130°C)	**max. 0.5%**
Heavy metals (as Pb)	**max. 0.0005%**	Water insolubles	**max. 0.01%**
Iron (Fe)	**max. 0.001%**		

Cat. No. 194803

Sodium sulfate anhydrous

Meets EP/BP spec.

Appearance	**White crystalline powder**	Calcium (Ca)	**max. 0.045%**
Identification A	**Passes EP/BP test**	Chloride (Cl)	**max. 0.045%**
Identification B	**Passes EP/BP test**	Heavy metals (as Pb)	**max. 0.0045%**
Identification C	**Passes EP/BP test**	Iron (Fe)	**max. 0.009%**
Appearance of solution	**Solution S is clear & colorless**	Magnesium (Mg)	**max. 0.02%**
		Loss on drying (130°C)	**max. 0.5%**
Acidity or Alkalinity	**Passes EP/BP test**		
Assay	**98.5-101.0%**		

Cat. No. 194802

Sodium sulfate anhydrous

CP

Assay	**98-102%**
Loss on drying (130°C)	**max. 1%**
pH (5% in water)	**5.2-9.2**
Water insolubles	**max. 0.01%**

Sodium thiosulfate anhydrous

CAS [7772-98-7]; EC 231-867-5; $Na_2O_3S_2$; M 158.10

Cat. No. 198305

Sodium thiosulfate anhydrous

AR

Appearance	**Colorless solid**	Sulfide (S)	**Passes ACS test**
Assay	**98.0-102.0%w/w**	Sulfate & Sulfite (as SO_4)	**max. 0.1%**
Heavy metals (as Pb)	**max. 0.005%**	pH (5% in water)	**6.0-8.4**
Iron (Fe)	**max. 0.005%**	Water insolubles	**max. 0.005%**

Cat. No. 198302

Sodium thiosulfate anhydrous

CP

Appearance	**Colorless to off-white mass**
Assay	**97-103%w/w**
pH (5% in water)	**5.5-8.5**

Sodium thiosulfate pentahydrate

CAS [10102-17-7]; EC 231-867-5; $Na_2O_3S_2x5H_2O$; M 248.18

Cat. No. 264005

Sodium thiosulfate pentahydrate

AR

Assay	**99-101%w/w**	Sulfide (S)	**Passes test**
pH (5% in water)	**6.0-8.4**	Sulfate & Sulfite (as SO_4)	**max. 0.1%**
Water insolubles	**max. 0.005%**		

Cat. No. 264002

Sodium thiosulfate pentahydrate

CP

Assay	**98-102%w/w**
pH (5% in water)	**6-9**
Water insolubles	**max. 0.01%**

Solkleen

Composition: *Degreasing mixture contains: 1,1-dichloro-1-fluoroethane.*

CAS [1717-00-6]; EC 404-080-1; $C_2H_3Cl_2F$; M 116.9

D 1.24; m.p. -103.5 °C; b.p. 32 °C;

Danger H:412; EUH:059; P:273

Cat. No. 191910

Solkleen

MOS

Application: Surface treatment agent.

Appearance	**Clear colorless liquid**	Assay main constituent	**min. 99.5%**
Acidity (as Acetic acid)	**max. 0.003%**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 15**	Water (KF)	**max. 0.02%w/w**

Filtered through 0.2µm, filled under inert gas.

Solkleen (Contain alcohols)

Composition: *Degreasing mixture contains: 1,1-dichloro-1-fluoroethane and alcohols.*

D 1.23; b.p. 32°C; UN 2810,6.1,III,T1;

Danger H:371-412; EUH:059; P:260-264-273-309+311-405

Cat. No. 191505

Solkleen (Contain alcohols)

AR

Application: Azeotropic mixture used in vapor degreasers or chamber-cleaning machines.

Appearance	**Clear colorless liquid**	Methanol	**4-7%**
Acidity (as HCl)	**max. 0.001%**	Residue after evaporation	**max. 0.0003%w/w**
Color (APHA)	**max. 15**	Water (KF)	**max. 0.02%w/w**
Assay main constituent	**93-96%**		

Cat. No. 191592

Solkleen (Contain alcohols)

AR-MT

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0001%w/w**
Acidity (as HCl)	**max. 0.001%**	Water (KF)	**max. 0.02%w/w**
Color (APHA)	**max. 10**		
Assay main constituent	**93-96%**		
Methanol	**4-7%**		

Cat. No. 191502

Solkleen (Contain alcohols)

CP

Acidity (as HCl)	**max. 0.003%**	Residue after evaporation	**max. 0.002%w/w**
Color (APHA)	**max. 30**	Water (KF)	**max. 0.05%w/w**
Assay main constituent	**93-96%**		
Methanol	**4-7%**		

Solkleen 20

Composition: *Degreasing mixture contains: 1,1-dichloro-1-fluoroethane and ~20% alcohols.*

D 1.15; UN 1993,3,II,F1; m.p. -43 °C; b.p. 40 °C

Danger H:225-319-336-412; EUH:059; P:210-241-303+361+353-305+351+338

Cat. No. 189602

Solkleen 20

CP

Application: Azeotropic mixture used in vapor degreasers or chamber-cleaning machines.

Appearance	**Clear liquid**
Color (APHA)	**max. 20**
Composition by GC	**Complies**
Residue after evaporation	**max. 0.001%w/w**

Solkleen IP

Composition: *Degreasing mixture contains: 1,1-dichloro-1-fluoroethane and ~20% IPA.*

m.p. -43 °C; b.p. 40 °C

Cat. No. 196202

Solkleen IP

CP

Application: Used in vapor degreasers or chamber-cleaning machines.

Acidity (as HCl)	**max. 0.003%**	2-Propanol	**19-21%**
Color (APHA)	**max. 25**	Residue after evaporation	**max. 0.002%w/w**
Assay main constituent	**79-81%**	Water (KF)	**max. 0.05%w/w**

Solvokleen 20

Composition: *HFC-365mfc with low content of trans-Dichloroethylene.*

D 1.253; m.p. -43 °C; b.p. 40 °C;

Warning; H:333-412; P:273

Cat. No. 189205

Solvokleen 20

AR

Application: Non-azeotropic mixture used in vapor degreasers or chamber-cleaning machines.

Appearance	**Clear liquid**	Purity (GC, on anhydrous basis)	**min. 99.5%**
Color (APHA)	**max. 15**	Acidity (as HCl)	**max. 0.001%**
Composition by GC	**Complies**	Residue after evaporation	**max. 0.0005%w/w**

Solvokleen E1.5

Composition: *HFC-365mfc / trans-Dichloroethylene with low stabilizer content.*

D 1.22; m.p. -42°C; b.p. 35.8°C;

H:333; EUH:210;

Cat. No. 189505

Solvokleen E1.5

AR

Application: Azeotropic mixture used in vapor degreasers or chamber-cleaning machines.

Appearance	**Clear liquid**	Water (KF)	**max. 0.01%w/w**
Color (APHA)	**max. 10**	Acidity (as HCl)	**max. 0.0005%**
Composition by GC	**Complies**	Residue after evaporation	**max. 0.0005%w/w**
Purity (GC, on anhydrous basis)	**min. 99.7%**		

Cat. No. 189502

Solvokleen E1.5

CP

Appearance	**Clear liquid**	Water (KF)	**max. 0.03%w/w**
Composition by GC	**Complies**	Acidity (as HCl)	**max. 0.001%**
Purity (GC, on anhydrous basis)	**min. 99.5%**	Residue after evaporation	**max. 0.001%w/w**

Solvokleen X

Composition: *HFC-365mfc / trans-Dichloroethylene contains stabilizer.*

D 1.22; m.p. -43 °C; b.p. 36 °C;

Warning; H:412; P:273

Cat. No. 189405

Solvokleen X

AR

Application: Azeotropic mixture used in vapor degreasers or chamber-cleaning machines.

Appearance	**Clear liquid**	Water (KF)	**max. 0.01%w/w**
Color (APHA)	**max. 10**	Acidity (as HCl)	**max. 0.0010%**
Composition by GC	**Complies**	Residue after evaporation	**max. 0.0005%w/w**
Purity (GC, on anhydrous basis)	**min. 99.7%**		

Cat. No. 189402

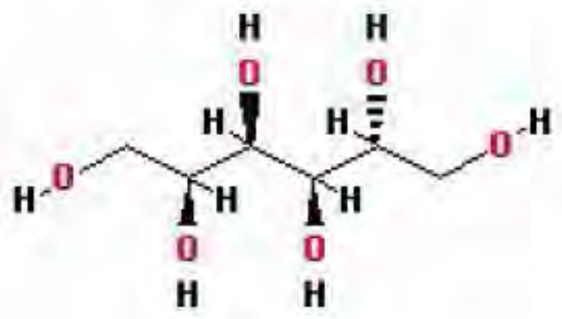
Solvokleen X

CP

Appearance	**Clear liquid**	Water (KF)	**max. 0.03%w/w**
Composition by GC	**Complies**	Acidity (as HCl)	**max. 0.002%**
Purity (GC, on anhydrous basis)	**min. 99.5%**	Residue after evaporation	**max. 0.001%w/w**

D-Sorbitol

CAS [50-70-4]; EC 200-061-5; $C_6H_{14}O_6$; M 182.17



Cat. No. 199523

D-Sorbitol

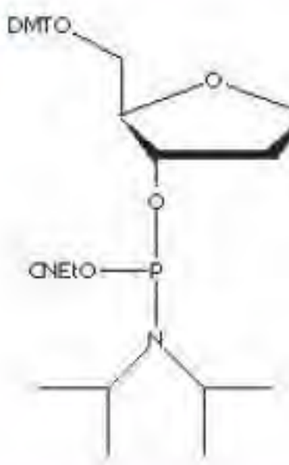
Molecular biology

Appearance	**White crystalline powder**	Melting point	**min. 94°C**
Assay (HPLC)	**min. 98%**	Water (KF)	**max. 2%w/w**
S.Rotation 20/D (C=10 in Water)	**-1.8--1.2°**		

dSpacer CE Phosphoramidite

CAS [129821-76-7]; $C_{35}H_{45}N_2O_6P$; M 620.73;

Warning; H:302-312-319; P:261-280-301+312-305+351+338-322



Cat. No. 242724

dSpacer CE Phosphoramidite

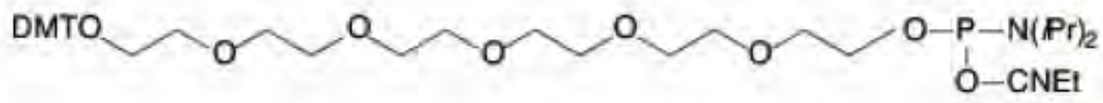
DNA synthesis

Assay (HPLC)	**min. 97%**
Solubility (0.1M in ACN)	**Complete, clear**

See also DNA & RNA synthesis section, p. 363-418

Spacer phosphoramidite 18

$C_{42}H_{81}N_2O_{10}P$; M 784.93;



Cat. No. 242624

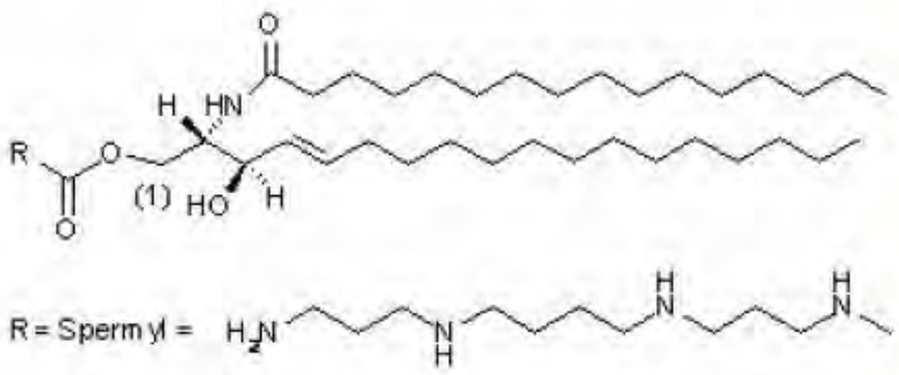
Spacer phosphoramidite 18

DNA synthesis

Appearance	**Colorless to pale yellow oil**
Assay (HPLC)	**min. 90%**
Purity by NMR P^{31}	**min. 95%**
Solubility (0.1M in ACN)	**Complete, clear**

1-(Spermyl)-CCS (1-PCCS)

$C_{45}H_{91}N_5O_4C_2H_4O_2$; M 766.2;



Cat. No. 198680

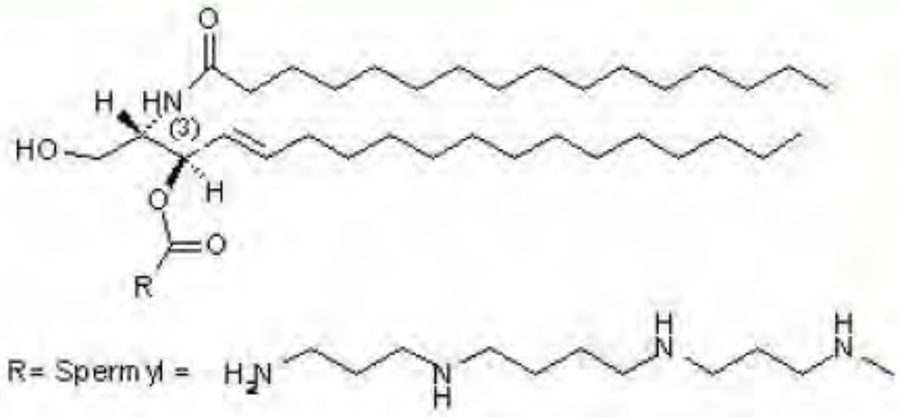
1-(Spermyl)-CCS (1-PCCS)

For synthesis

Purity (RP TLC)	**min. 98%**	NMR C^{13} Spectrum	**Conforms with structure**
Purity (NP TLC)	**min. 98%**	NMR H^1 spectrum	**Conforms with structure**
Identity (IR)	**Conforms with standard**	MS Spectra	**ESI+ Conforms with structure**

3-(Spermyl)-CCS (3-PCCS)

$C_{45}H_{91}N_5O_4C_2H_4O_2$; M 766.2;



Cat. No. 198780

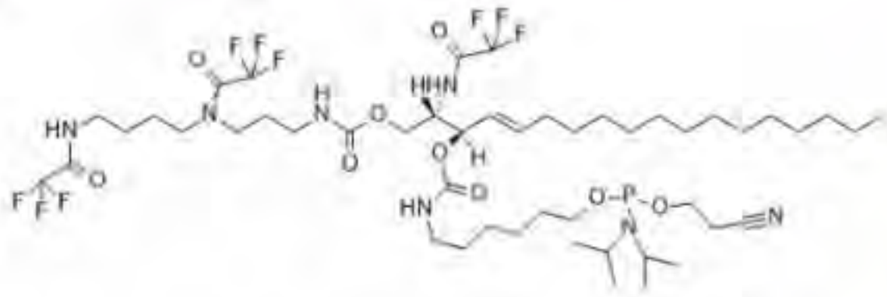
3-(Spermyl)-CCS (3-PCCS)

For synthesis

Purity (RP TLC)	**min. 98%**	NMR C^{13} Spectrum	**Conforms with structure**
Purity (NP TLC)	**min. 98%**	NMR H^1 spectrum	**Conforms with structure**
Identity (IR)	**Conforms with standard**	MS Spectra	**ESI+ Conforms with structure**

Sphingolipid-Spermidine phosphoramidite

$C_{65}H_{96}F_6N_7O_9P$; M 1264.46;



Cat. No. 459624

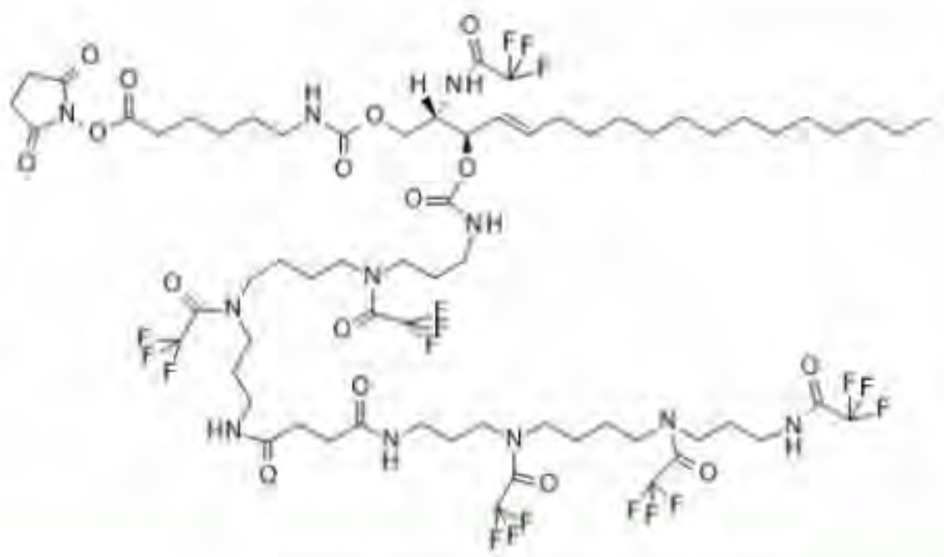
Sphingolipid-Spermidine phosphoramidite

DNA synthesis

Appearance	**Colorless to light yellow oil**	NMR P^{31} spectrum	**Conforms with structure**
		NMR H^1 spectrum	**Conforms with structure**
Assay (HPLC)	**min. 90%**		
Purity by NMR P^{31}	**min. 95%**		

Sphingosine-Spermine activated ester

$C_{66}H_{97}F_{18}N_{11}O_{15}$; M 1642.5;



Cat. No. 463124

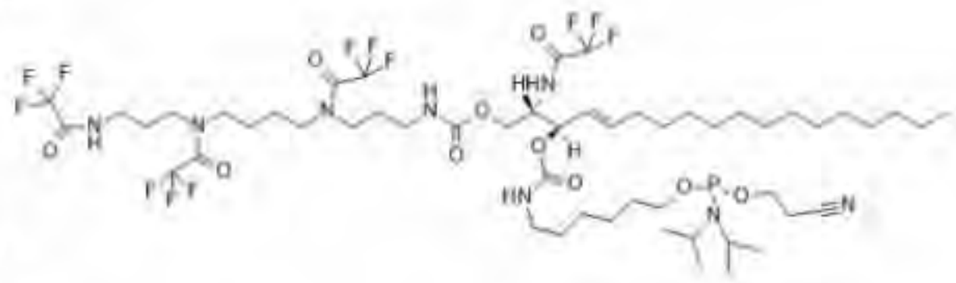
Sphingosine-Spermine activated ester

DNA synthesis

Appearance	**White to off-white solid**
Purity (HPLC)	**min. 90%**
NMR H^1 spectrum	**Conform to structure**

Sphingolipid-Spermine phosphoramidite

$C_{71}H_{104}F_9N_8O_{10}P$; M 1431.6;



Cat. No. 459524

Sphingolipid-Spermine phosphoramidite

DNA synthesis

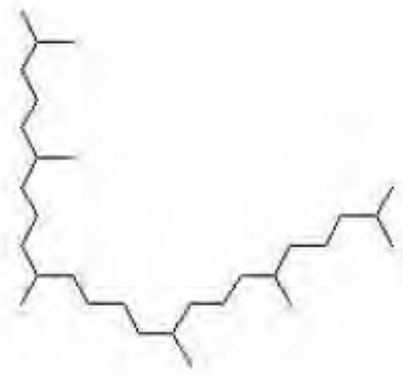
Appearance	**Colorless to light yellow oil**	NMR P^{31} spectrum	**Conforms with structure**
Purity (HPLC)	**min. 90%**	NMR H^1 spectrum	**Conforms with structure**
Purity by NMR P^{31}	**min. 95%**		

Squalane

Synonym: *2,6,10,15,19,23-Hexamethyltetracosane, Cosbiol, Perhydrosqualene*

CAS [111-01-3]; EC 203-825-6; $C_{30}H_{62}$; M 422.82

D 0.81; m.p. -38 °C; b.p. 280 °C;



Cat. No. 171999

Squalane

General reagent

Appearance	**Clear liquid**	Acid value	**max. 0.5mgKOH/gr**
Color (APHA)	**max. 15**	Residue after ignition	**max. 0.1%**
Assay (GC, on anhydrous basis)	**min. 96%**		

SSC Buffer 20X

Synonym: *Sodium citrate-Sodium chloride buffer*

Composition: *Trisodium citrate 0.3M, Sodium Chloride 3M.*

D 1.16;

Cat. No. 198523

SSC Buffer 20X

Molecular biology

Application: Commonly used in the transfer, blocking and hybridization as well as the post-hybridization washing steps in both Northern and Southern blotting.

Appearance	**Clear colorless liquid**	DNase activity	**Not detected**
pH of 1X Conc. (25°C)	**7.75-7.95**	RNase activity	**Not detected**
pH of 20X Conc. (25°C)	**6.9-7.1**	Protease activity	**Not detected**
Conductivity of 20X Conc. (25°C)	**max. 200mS/cm**		

SSPE Buffer 20X

Synonym: *Saline-sodium phosphate EDTA*
Composition: *Sodium phosphate monobasic 0.2M , Sodium chloride 3.0M , EDTA 0.02M*

Cat. No. 198923

SSPE Buffer 20X

Molecular biology

Application: Commonly used in the transfer, blocking and hybridization as well as the post-hibrydization washing steps in both Northern and Southern blotting.

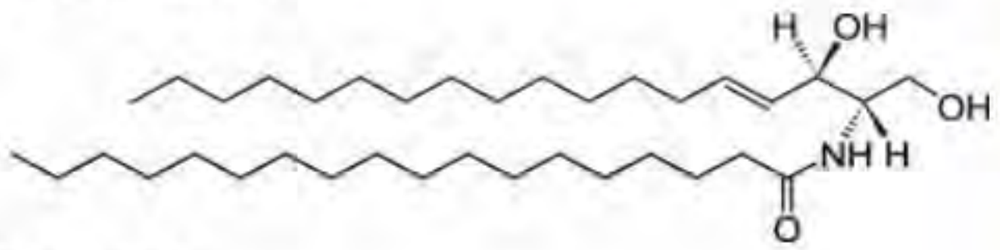
Appearance	**Clear colorless liquid**	RNase activity	**Not detected**
pH of 20X Conc. (25°C)	**7.3-7.5**	Protease activity	**Not detected**
DNase activity	**Not detected**		

Filtered through 0.2µm, aseptically filled.

N-Stearoyl-D-erythro-Sphingosine (C18 Ceramide)

Synonym: *Ceramide C18; N-(octadecanoyl)-sphing-4-enine.*

CAS [2304-81-6]; $C_{36}H_{71}NO_3$; M 566.0;



Cat. No. 039680

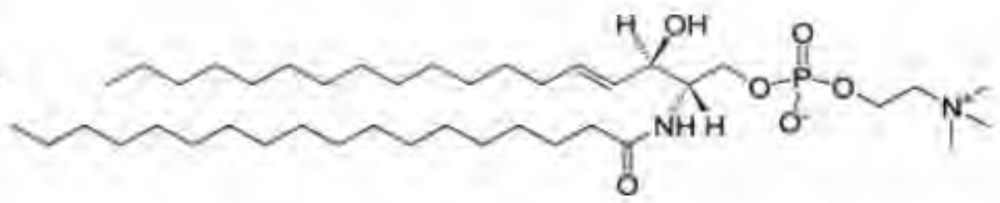
N-Stearoyl-D-erythro-Sphingosine (C18 Ceramide)

For synthesis

Appearance	**White to off-white solid**		
Assay (HPLC)	**min. 98%**		
Purity (TLC)	**min. 98%**		
NMR H^1 spectrum	**Conforms to structure**		

N-Stearoyl-D-erythro-Sphingosylphosphorylcholine (Stearoyl Sphingomyelin)

Synonym: *,Octadecanoyl Sphingomyelin*
.N-(octadecanoyl)-sphing-4-enine-1-phosphocholine



CAS [58909-84-5]; $C_{41}H_{83}N_2O_6P$; M 731.1;

Cat. No. 196880

N-Stearoyl-D-erythro-Sphingosylphosphorylcholine (Stearoyl Sphingomyelin)

For synthesis

Appearance	**White to off white solid**	NMR H^1 spectrum	**Conforms to structure**
Purity (HPLC)	**min. 98%**	MS Spectra	**Conforms to structure**
Purity (TLC)	**min. 98%**		

Stearyl alcohol

Synonym: *1-Octadecanol, Octadecyl alcohol*

CAS [112-92-5]; EC 204-017-6; $C_{18}H_{38}O$; M 270.5

Specification continues on the next page

Cat. No. 196303

Stearyl alcohol

Meets EP/BP spec.

Appearance	**White matter**	Acid value	**max. 1mgKOH/gr**
Appearance of solution	**Passes EP/BP test**	Hydroxyl value	**197-217mgKOH/gr**
Identification	**Passes EP/BP test**	Iodine value	**max. 2GI/100g**
Assay (GC, on anhydrous basis)	**min. 95%**	Saponification value	**max. 2mgKOH/gr**
Melting point	**57-60°C**		

Cat. No. 196302

Stearyl alcohol

CP

Appearance	**White matter**
Assay (GC, on anhydrous basis)	**min. 96%**

Stoddart solvent

CAS [8052-41-3]; EC 232-489-3; D 0.78; UN 1300,3,III,F1

Danger H:304-340-350; P:281-301+310-308+313-331

Cat. No. 197802

Stoddart solvent

CP

Appearance	**Clear colorless liquid**
Color (APHA)	**max. 20**
Density (20/4°C)	**0.77-0.78gr/ml**
Boiling range (150-210°C)	**Complies**

Sulfuric acid 95-98%

CAS [7664-93-9]; EC 231-639-5; H_2SO_4; M 98.08

D 1.84; m.p. 10 °C; b.p. 290 °C; UN 1830,8,II,C1

Danger H:314; P:260-303+361+353-305+351+338-310

Cat. No. 195505

Sulfuric acid 95-98%

AR

Appearance	**Clear colorless liquid**	Heavy metals (as Pb)	**max. 0.0001%**
Color (APHA)	**max. 10**	Iron (Fe)	**max. 0.00002%**
Assay (T)	**95.0-98.0%w/w**	Nitrate (NO_3)	**max. 0.00005%**
Ammonium (NH4)	**max. 0.0002%**	Reducing substances (as SO_2)	**max. 0.0002%**
Arsenic (As)	**max. 0.000001%**	Hg (Mercury)	**max. 5ppb**
Chloride (Cl)	**max. 0.00002%**	Residue after ignition	**max. 0.0005%**

Cat. No. 195503

Sulfuric acid 95-98%

Meets EP/BP spec.

Appearance	**Colorless, oily, hygroscopic liquid**	Nitrates (NO_3)	**Passes EP/BP test**
		Arsenic (As)	**max. 0.0001%**
Assay (T)	**95.0-98.0%w/w**	Iron (Fe)	**max. 0.0025%**
Relative density	**1.82-1.86**	Heavy metals (as Pb)	**max. 0.0005%**
Identification A	**Passes EP/BP test**	Solubility	**Miscible with Water & EtOH 96%**
Identification B	**Passes EP/BP test**		
Appearance of solution	**Passes EP/BP test**	Residual solvents	**Excluded by production process**
Chloride (Cl)	**max. 0.005%**		

Cat. No. 195576

Sulfuric acid 95-98%

VLSI

Appearance	**Clear liquid**	Ge (Germanium)	**max. 10ppb**
Color (APHA)	**max. 10**	K (Potassium)	**max. 50ppb**
Assay (T)	**95.0-98.0%w/w**	Li (Lithium)	**max. 10ppb**
Residue after ignition	**max. 0.0003%**	Mg (Magnesium)	**max. 20ppb**
Chloride (Cl)	**max. 0.00001%**	Mn (Manganese)	**max. 10ppb**
Nitrate (NO_3)	**max. 0.00002%**	Na (Sodium)	**max. 50ppb**
Phosphate (PO_4)	**max. 0.00003%**	Nb (Niobium)	**max. 20ppb**
Ag (Silver)	**max. 10ppb**	Ni (Nickel)	**max. 10ppb**
Al (Aluminum)	**max. 50ppb**	Pb (lead)	**max. 10ppb**
As (Arsenic)	**max. 10ppb**	Sb (Antimony)	**max. 10ppb**
Au (Gold)	**max. 10ppb**	Si (Silicon)	**max. 30ppb**
B (Boron)	**max. 20ppb**	Sn (Tin)	**max. 20ppb**
Ba (Barium)	**max. 10ppb**	Sr (Strontium)	**max. 20ppb**
Be (Beryllium)	**max. 10ppb**	Ta (Tantalum)	**max. 20ppb**
Bi (Bismuth)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Ca (Calcium)	**max. 50ppb**	Tl (Thallium)	**max. 20ppb**
Cd (Cadmium)	**max. 10ppb**	V (Vanadium)	**max. 10ppb**
Co (Cobalt)	**max. 10ppb**	Zn (Zinc)	**max. 20ppb**
Cr (Chromium)	**max. 10ppb**	Zr (Zirconium)	**max. 10ppb**
Cu (Copper)	**max. 10ppb**	Particle count > 0.5um	**max. 80P/ml**
Fe (Iron)	**max. 50ppb**	Particle count > 1µm	**max. 10P/ml**
Ga (Gallium)	**max. 10ppb**		

Cat. No. 195510

Sulfuric acid 95-98%

MOS

Appearance	**Clear liquid**	Ga (Gallium)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Ge (Germanium)	**max. 0.05ppm**
Assay (T)	**95.0-98.0%w/w**	K (Potassium)	**max. 0.05ppm**
Chloride (Cl)	**max. 0.0001%**	Li (Lithium)	**max. 0.05ppm**
Nitrate (NO_3)	**max. 0.0001%**	Mg (Magnesium)	**max. 0.05ppm**
Phosphate (PO_4)	**max. 0.0001%**	Mn (Manganese)	**max. 0.01ppm**
Residue after ignition	**max. 0.0005%**	Na (Sodium)	**max. 0.1ppm**
Ag (Silver)	**max. 0.02ppm**	Nb (Niobium)	**max. 0.01ppm**
Al (Aluminum)	**max. 0.05ppm**	Ni (Nickel)	**max. 0.05ppm**
As (Arsenic)	**max. 0.01ppm**	Pb (Lead)	**max. 0.02ppm**
Au (Gold)	**max. 0.05ppm**	Sb (Antimony)	**max. 0.02ppm**
B (Boron)	**max. 0.05ppm**	Si (Silicon)	**max. 0.1ppm**
Ba (Barium)	**max. 0.02ppm**	Sn (Tin)	**max. 0.05ppm**
Be (Beryllium)	**max. 0.01ppm**	Sr (Strontium)	**max. 0.05ppm**
Bi (Bismuth)	**max. 0.02ppm**	Ta (Tantalum)	**max. 0.01ppm**
Ca (Calcium)	**max. 0.2ppm**	Ti (Titanium)	**max. 0.02ppm**
Cd (Cadmium)	**max. 0.05ppm**	Tl (Thallium)	**max. 0.02ppm**
Co (Cobalt)	**max. 0.02ppm**	V (Vanadium)	**max. 0.02ppm**
Cr (Chromium)	**max. 0.02ppm**	Zn (Zinc)	**max. 0.05ppm**
Cu (Copper)	**max. 0.02ppm**	Zr (Zirconium)	**max. 0.01ppm**
Fe (Iron)	**max. 0.2ppm**	Particle count > 1µm	**max. 25P/ml**

Cat. No. 195502

Sulfuric acid 95-98%

CP

Appearance	**Clear liquid**	Chloride (Cl)	**max. 0.0005%**
Assay (T)	**95-98%w/w**	Reducing substances (as SO_2)	**max. 0.02%**
Color (APHA)	**max. 40**		

Sulfuric acid 91%

CAS [7664-93-9]; EC 231-639-5; H_2SO_4; M 98.08

D 1.82; m.p. 10 °C; b.p. 290 °C; UN 1830,8,II,C1

Danger H:314; P:260-303+361+353-305+351+338-310

Cat. No. 195805

Sulfuric acid 91%

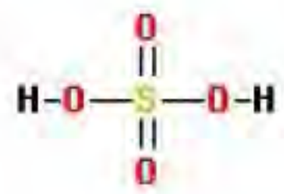
AR

Appearance	**Clear colorless liquid**	Reducing substances (as SO_2)	**max. 0.002%**
Color (APHA)	**max. 10**	Nitrate & Nitrite (as N)	**max. 0.001%**
Chloride (Cl)	**max. 0.001%**	As (Arsenic)	**max. 0.0003%**
Density (20/4°C)	**1.817-1.822gr/ml**	Cu (Copper)	**max. 0.003%**
Residue after ignition	**max. 0.01%**	Fe (Iron)	**max. 0.007%**
Assay (T)	**90.5-91.5%w/w**	Mn (Manganese)	**max. 0.0001%**

Sulfuric acid 62%

CAS [7664-93-9]; EC 231-639-5; H_2SO_4; M 98.07

Danger H:314; P:260-303+361+353-305+351+338-310



Cat. No. 195705

Sulfuric acid 62%

AR

Appearance	**Clear colorless liquid**	Reducing substances (as SO_2)	**max. 0.002%**
Color (APHA)	**max. 10**	Nitrate & Nitrite (as N)	**max. 0.001%**
Chloride (Cl)	**max. 0.001%**	As (Arsenic)	**max. 0.0003%**
Density (20/4°C)	**1.515-1.526gr/ml**	Cu (Copper)	**max. 0.003%**
Residue after ignition	**max. 0.01%**	Fe (Iron)	**max. 0.007%**
Assay (T)	**61.5-62.5%w/w**	Mn (Manganese)	**max. 0.0001%**

Sulfurizing reagent II; DDTT

$C_5H_7N_3S_3$; M 205.31;

Cat. No. 180124

Sulfurizing reagent II; DDTT

DNA synthesis

Appearance	**Yellowish solid**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in Pyr)	**Complete, clear**

TAE Buffer 10X

Synonym: *TEA buffer, Tris-Acetate-EDTA buffer*

Composition: *Tris-Acetate 0.4M, EDTA 0.01M*

CAS [135852-26-5]; D 1.015;

Specification continues on the next page

Cat. No. 201323

TAE Buffer 10X

Molecular biology

Application: TEA buffer is commonly used for DNA agarose gel electrophoresis and also for non-denaturing RNA agarose gel electrophoresis.

Appearance	**Clear colorless liquid**	Conductivity of 10X Conc. (25°C)	**max. 20mS/cm**
pH of 1X Conc. (25°C)	**8.2-8.4**	DNase activity	**Not detected**
Conductivity of 1X conc (25°C)	**max. 5mS/cm**	RNase activity	**Not detected**
pH of 10X Conc. (25°C)	**8.3-8.5**	Protease activity	**Not detected**

Filtered through 0.2µm, aseptically filled.

TAE Buffer 25X

Synonym: *TEA buffer, Tris-Acetate-EDTA buffer*
Composition: *Tris-Acetate 1M, EDTA 0.025M*

CAS [135852-26-5];

Warning; H:315-319; P:280-305+351+338-321-332+313-337+313-362

Cat. No. 204323

TAE Buffer 25X

Molecular biology

Application: TEA buffer is commonly used for DNA agarose gel electrophoresis and also for non-denaturing RNA agarose gel electrophoresis.

Appearance	**Clear colorless liquid**	DNase activity	**Not detected**
pH of 1X Conc. (25°C)	**8.2-8.4**	RNase activity	**Not detected**
Conductivity of 1X conc (25°C)	**max. 5mS/cm**	Protease activity	**Not detected**
pH of 25X Conc. (25°C)	**8.3-8.5**		
Conductivity of 25X Conc. (25°C)	**max. 25mS/cm**		

Filtered through 0.2µm, aseptically filled.

TAE Buffer 50X

Synonym: *TEA buffer, Tris-Acetate-EDTA buffer*
Composition: *Tris-Acetate 2M, EDTA 0.05M*

CAS [135852-26-5]; UN 1993,3,III,F1;

Warning; H:226-315-319-335; P:210-241-303+361+353-305+351+338

Cat. No. 205023

TAE Buffer 50X

Molecular biology

Application: TEA buffer is commonly used for DNA agarose gel electrophoresis and also for non-denaturing RNA agarose gel electrophoresis.

Appearance	**Clear colorless liquid**	DNase activity	**Not detected**
pH of 1X Conc. (25°C)	**8.2-8.4**	RNase activity	**Not detected**
Conductivity of 1X conc (25°C)	**max. 5mS/cm**	Protease activity	**Not detected**
pH of 50X Conc. (25°C)	**8.3-8.5**		
Conductivity of 50X Conc. (25°C)	**max. 25mS/cm**		

Filtered through 0.2µm, aseptically filled.

TBE Buffer 5X

Synonym: *Tris-Borate-EDTA buffer*
Composition: *Tris Base 0.445M , Boric Acid 0.445M , EDTA 0.01M.*

CAS [610769-35-2];

Cat. No. 205123

TBE Buffer 5X

Molecular biology

Application: TBE buffer is commonly used in nucleic acid electrophoresis.

Appearance	**Clear colorless liquid**	Density of 5X conc. (25°C)	**1.01-1.06gr/ml**
pH of 1X Conc. (25°C)	**8.25-8.45**	Conductivity of 5X conc. (25°C)	**3-5mS/cm**
Density of 1X conc (25°C)	**1.002-1.010gr/ml**	DNase activity	**Not detected**
Conductivity of 1X conc (25°C)	**0.5-1.5mS/cm**	RNase activity	**Not detected**
pH of 5X Conc. (25°C)	**8.2-8.4**	Protease activity	**Not detected**

Filtered through 0.2µm, aseptically filled.

TBE Buffer 10X

Synonym: *Tris-Borate-EDTA buffer*
Composition: *Tris Base 0.89M . Boric Acid 0.89M . EDTA 0.02M.*

CAS [610769-35-2]; D 1.06;

Danger H:315-319-360; P:280-281-305+351+338-321

Cat. No. 201423

TBE Buffer 10X

Molecular biology

Application: TBE buffer is commonly used in nucleic acid electrophoresis.

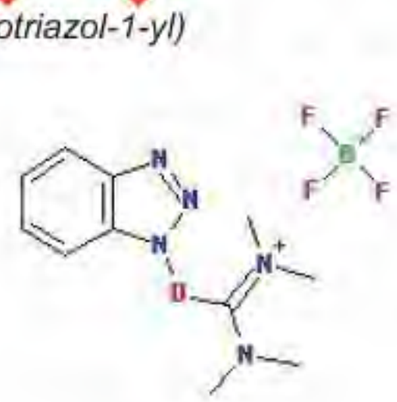
Appearance	**Clear colorless liquid**	Conductivity of 10X Conc. (25°C)	**4-6mS/cm**
pH of 1X Conc. (25°C)	**8.25-8.45**	DNase activity	**Not detected**
Density of 1X conc (25°C)	**1.002-1.010gr/ml**	RNase activity	**Not detected**
Conductivity of 1X conc (25°C)	**0.5-1.5mS/cm**	Protease activity	**Not detected**
pH of 10X Conc. (25°C)	**8.2-8.4**		
Density of 10X Conc. (25°C)	**1.02-1.07gr/ml**		

Filtered through 0.2µm, aseptically filled.

TBTU

Synonym: *N,N,N',N'-Tetramethyl-O-(benzotriazol-1-yl)uronium tetrafluoroborate, O-(Benzotriazol-1-yl) -N,N,N',N'-tetramethyluronium tetrafluoroborate*

CAS [125700-67-6]; EC 423-040-4; $C_{11}H_{16}BF_4N_5O$; M 321.09



Danger H:228-315-319-335; P:210-241-305+351+338-405-501

Cat. No. 201133

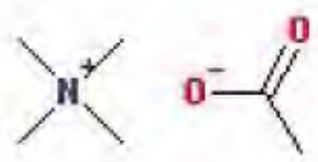
TBTU

Peptide synthesis

Appearance	**White powder**	Loss on drying (105°C)	**max. 1%**
Solubility (10% in ACN)	**Clear**	Identity (IR)	**Conforms to standard**
Assay (HPLC)	**min. 98%**		

TEAA 1.0M Buffer pH 7

CAS [5204-74-0]; EC 225-995-0; $C_8H_{19}NO_2$; M 161.24



Warning; H:315-319-335; P:261-280-305+351+338-321-405

Cat. No. 209506

TEAA 1.0M Buffer pH 7

HPLC

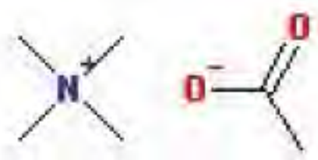
Appearance	**Clear solution**	Assay (T)	**0.95-1.05M**
pH	**6.9-7.1**	A270nm	**max. 0.02AU**
Residue after evaporation	**max. 0.0005%w/w**	A254nm	**max. 0.04AU**
Filter test	**Passes test**		

Filtered through 0.2µm, filled under inert gas.

TEAA 2.0M Buffer pH-7

Composition: Triethylammonium acetate 2M

CAS [5204-74-0]; EC 225-995-0; $C_8H_{19}NO_2$; M 161.24



Danger H:315-319-335; P:261-280-305+351+338-321-405

Cat. No. 204206

TEAA 2.0M Buffer pH-7

HPLC

Appearance	**Clear solution**	Filter test	**Passes test**
pH	**6.9-7.1**	Assay (T)	**1.9-2.1M**
Residue after evaporation	**max. 0.001%w/w**	A270nm	**max. 0.07AU**
		A254nm	**max. 0.15AU**

Filtered through 0.2µm, filled under inert gas.

TEAA 1M in Acetonitrile/Water, 80:20

D 0.83; UN 2924,3+8,II,FC;

Danger H:225-312-314-332-335-336; P:210-303+361+353-305+351+338-310

Cat. No. 209606

TEAA 1M in Acetonitrile/Water, 80:20

HPLC

Appearance	**Clear solution**	Filter test	**Passes test**
Density (20/4°C)	**0.84-0.88gr/ml**	Assay (T)	**0.95-1.05M**
Sterility test	**Passes test**	A270nm	**max. 0.07AU**

TEAA 0.1M / Acetonitrile 5:95

D 0.793; UN 1993,3,II,F1;

Danger H:225-312-319-332; P:210-241-261-303+361+353-305+351+338

Cat. No. 272306

TEAA 0.1M / Acetonitrile 5:95

HPLC

Appearance	**Clear colorless liquid**	T255nm	**min. 40%**
Assay (T)	**0.095-0.105M**	T265nm	**min. 85%**
Residue after evaporation	**max. 0.0005%w/w**	T275nm	**min. 95%**
Filter test	**Passes test**		
Water (KF)	**3.3-3.5%w/v**		

Filtered through 0.2µm, filled under inert gas.

TEAA 0.1M in Water/Acetonitrile 95:5

CAS [5204-74-0]; EC 225-995-0;

Danger H:225-315-319-335-336; P:210-241-303+361+353-305+351+338

Cat. No. 272406

TEAA 0.1M in Water/Acetonitrile 95:5

HPLC

Appearance	**Clear colorless liquid**	T235nm	**min. 75%**
Assay (T)	**0.095-0.105M**	T245nm	**min. 95%**
Residue after evaporation	**max. 0.0005%w/w**	T255nm	**min. 98%**
Filter test	**Passes test**		
Water (KF)	**93.5-94.5%w/v**		

Filtered through 0.2µm, filled under inert gas.

TEMED

Synonym: *Bis(dimethylamino)ethane, N,N,N',N'-Tetramethylethylenediamine TMEDA*

CAS [110-18-9]; EC 203-744-6; $C_6H_{16}N_2$; M 116.21

D 0.78; m.p. -55 °C; b.p. 120-122 °C; UN 2372,3,II,F1

Danger H:225-302-314-332; P:210-303+361+353-305+351+338-310-405

Cat. No. 201023

TEMED

Molecular biology

Appearance	**Clear colorless liquid**	DNase activity	**Not detected**
Density (20/4°C)	**0.76-0.78gr/ml**	RNase activity	**Not detected**
Assay (GC, on anhydrous basis)	**min. 99%**	Protease activity	**Not detected**
Water (KF)	**max. 0.5%w/w**		

See also Molecular Biology section, p. 423-458

Tetrabutylammonium hydroxide 0.1N in Toluene/MeOH

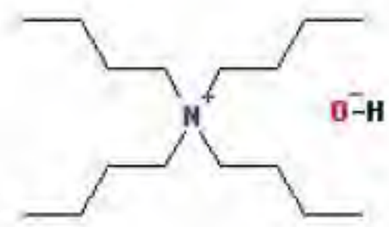
$C_4H_{13}NO$; M 91.15; D 0.85; UN 1992,3 (6.1),II,FT1

Danger H:225-304-315-319-332-370-373-361d; P:210-301+310-303+361+353-305+351+338

Cat. No. 206080

Tetrabutylammonium hydroxide 0.1N in Toluene/MeOH

For synthesis

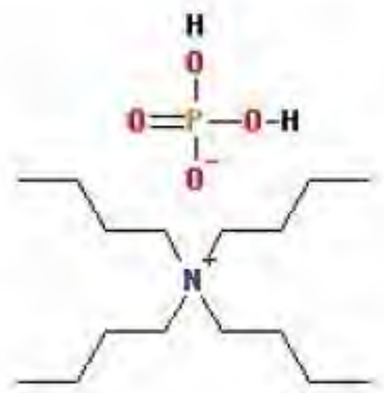


Appearance of solution	**Clear, one phase**
Assay (T)	**0.095-0.105N**
Toluene content	**70-80%**
Methanol content	**20-30%**

Tetrabutylammonium phosphate monobasic

Synonym: Tetrabutylammonium dihydrogen phosphate

CAS [5574-97-0]; EC 226-947-1; $C_{16}H_{36}NO_4P$; M 339.45



Cat. No. 205506

Tetrabutylammonium phosphate monobasic

HPLC

Appearance	**White to off white solid**	A300nm (5mM)	**max. 0.02AU**
Assay (T, dry)	**98.5-100.5%w/w**	A500nm (5mM)	**max. 0.02AU**
A210nm (5mM)	**max. 0.05AU**	Water (KF)	**max. 0.5%w/w**
A220nm (5mM)	**max. 0.04AU**		

Tetrachloroethylene

Synonym: PCE, Perchloroethylene

CAS [127-18-4]; EC 204-825-9; C_2Cl_4; M 165.83

D 1.625; m.p. -22 °C; b.p. 120-122 °C; UN 1897,6.1,III,T1

Warning; H:351-411; P:273-281-308+313-391

Cat. No. 163538

Tetrachloroethylene

Spectrofluopure

Assay (GC, on anhydrous basis)	**min. 99.9%**	Alkalinity	**max. 0.0005meq/gr**
Color (APHA)	**max. 10**	Hydrocarbons (IR: 3050-2900 cm-1)	**max. 0.005%**
F365nm (as Quinine)	**max. 2ppb**	T290nm	**min. 10%**
Water (KF)	**max. 0.05%w/w**	T297nm	**min. 50%**
Residue after evaporation	**max. 0.0005%w/w**	T302nm	**min. 80%**
Acidity	**max. 0.0005meq/gr**	T>305nm	**min. 85%**

Cat. No. 163505

Tetrachloroethylene

AR

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.8%**
Acidity (as HCl)	**max. 0.001%**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.005%w/w**

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Cat. No. 163502

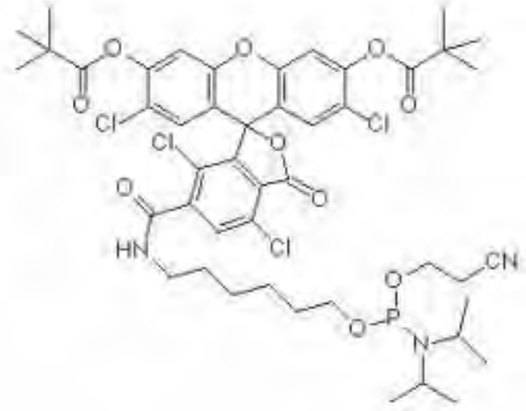
Tetrachloroethylene

CP

Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 99.7%**
Residue after evaporation	**max. 0.001%w/w**
Water (KF)	**max. 0.01%w/w**

5'-Tetrachlorofluorescein Phosphoramidite

$C_{46}H_{54}N_3O_{10}Cl_4P$; M 981.73;



Cat. No. 175124

5'-Tetrachlorofluorescein Phosphoramidite

DNA synthesis

Appearance	**White to off-white solid**
Assay (HPLC)	**min. 95%**
Solubility (0.1M in ACN)	**Complete, clear**

Tetraethylammonium hydrogen sulfate

CAS [16873-13-5]; EC 240-899-9; $(C_2H_5)_4N(HSO_4)$; M 227.32

Cat. No. 205806

Tetraethylammonium hydrogen sulfate

HPLC

Appearance	**White to off white powder**	A200nm (5mM)	**max. 0.15AU**
Water (KF)	**max. 0.5%w/w**	A220nm (5mM)	**max. 0.05AU**
Assay (T, dry)	**min. 99%w/w**		

Tetrahydrofuran (stab./BHT)

CAS [109-99-9]; EC 203-726-8; C_4H_8O; M 72.11

D 0.89; m.p. -108.4 °C; b.p. 66 °C; UN 2056,3,II,F`1

Danger H:225-319-335-351; EUH:019; P:210-241-303+361+353-305+351+338

Cat. No. 206306

Tetrahydrofuran (stab./BHT)

HPLC

Appearance	**Clear colorless liquid**	Peroxides (as H_2O_2)	**max. 0.005%**
Assay (GC, on anhydrous basis)	**min. 99.85%**	Stabilizer (BHT)	**0.007-0.015%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.010%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 206305

Tetrahydrofuran (stab./BHT)

AR

Appearance	**Clear colorless liquid**	Peroxides (as H_2O_2)	**max. 0.005%**
Acidity (as Acetic acid)	**max. 0.003%**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 10**	Stabilizer (BHT)	**0.02-0.03%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Water (KF)	**max. 0.03%w/w**

Cat. No. 206351

Tetrahydrofuran (stab./BHT)

AR-S glass distilled

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.003%**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cr (Chromium)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Cu (Copper)	**max. 0.02ppm**
Peroxides (as H_2O_2)	**max. 0.005%**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0005%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Stabilizer (BHT)	**0.02-0.03%w/w**	Mn (Manganese)	**max. 0.02ppm**
Water (KF)	**max. 0.01%w/w**	Ni (Nickel)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Pb (Lead)	**max. 0.1ppm**
B (Boron)	**max. 0.02ppm**	Sn (Tin)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Zn (Zinc)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**		

Cat. No. 206390

Tetrahydrofuran (stab./BHT)

Anhydrous

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.002%w/w**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Stabilizer (BHT)	**0.02-0.03%w/w**
Peroxides (as H_2O_2)	**max. 0.01%**	Water (KF)	**max. 0.005%w/w**

Cat. No. 206359

Tetrahydrofuran (stab./BHT)

Supra dry

Appearance	**Clear colorless liquid**	Peroxides (as H_2O_2)	**max. 0.01%**
Acidity (as Acetic acid)	**max. 0.003%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Stabilizer (BHT)	**0.02-0.03%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Water (KF)	**max. 0.001%w/w**

Cat. No. 206347

Tetrahydrofuran (stab./BHT)

Extra dry

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	Stabilizer (BHT)	**0.02-0.03%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Water (KF)	**max. 0.01%w/w**
Peroxides (as H_2O_2)	**max. 0.01%**		

Cat. No. 206353

Tetrahydrofuran (stab./BHT)

Extra dry / M. sieves

Acidity (as Acetic acid)	**max. 0.003%**	Residue after evaporation	**max. 0.001%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Stabilizer (BHT)	**0.02-0.03%w/w**
Peroxides (as H_2O_2)	**max. 0.01%**	Water (KF)	**max. 0.005%w/w**

Cat. No. 206333

Tetrahydrofuran (stab./BHT)

Peptide synthesis

Appearance	**Clear colorless liquid**	Stabilizer (BHT)	**0.02-0.03%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.01%w/w**
Free Amines (Kaiser)	**max. 0.0002%**	Fe (Iron)	**max. 0.1ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Mg (Magnesium)	**max. 0.1ppm**
Peroxides (as H_2O_2)	**max. 0.005%**	Pb (Lead)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0005%w/w**	Zn (Zinc)	**max. 0.1ppm**

Cat. No. 206302

Tetrahydrofuran (stab./BHT)

CP

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.005%w/w**
Color (APHA)	**max. 15**	Stabilizer (BHT)	**0.02-0.03%w/w**
Assay (GC, on anhydrous basis)	**min. 99%**	Water (KF)	**max. 0.1%w/w**
Peroxides (as H_2O_2)	**max. 0.01%**		

Tetrahydrofuran (unstabilized)

CAS [109-99-9]; EC 203-726-8; C_4H_8O; M 72.11

D 0.89; m.p. -108.4 °C; b.p. 66 °C; UN 2056,3,II,F1

Danger H:225-319-335-351; EUH:019; P:210-241-303+361+353-305+351+338

Cat. No. 202241

Tetrahydrofuran (unstabilized)

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	Ag (Silver)	**max. 50ppb**
Color (APHA)	**max. 10**	Al (Aluminum)	**max. 20ppb**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Ba (Barium)	**max. 50ppb**
Acidity (as Acetic acid)	**max. 0.0020%**	Bi (Bismuth)	**max. 50ppb**
Alkalinity (as Ammonia)	**max. 0.0005%**	Ca (Calcium)	**max. 50ppb**
Peroxides (as H202)	**max. 0.01%**	Cd (Cadmium)	**max. 50ppb**
MS-ESI+ (as Reserpine)	**max. 50ppb**	Co (Cobalt)	**max. 20ppb**
Water (KF)	**max. 0.02%w/w**	Cr (Chromium)	**max. 20ppb**
F254nm (as Quinine)	**max. 1ppb**	Fe (Iron)	**max. 20ppb**
F365nm (as Quinine)	**max. 1ppb**	K (Potassium)	**max. 50ppb**
Grad. elution H.Peak at 254nm	**max. 0.01AU**	Li (Lithium)	**max. 50ppb**
Grad. elution H.Peak at 280nm	**max. 0.003AU**	Mg (Magnesium)	**max. 20ppb**
T215nm	**min. 30%**	Mn (Manganese)	**max. 20ppb**
T235nm	**min. 40%**	Mo (Molybdenum)	**max. 50ppb**
T245nm	**min. 55%**	Na (Sodium)	**max. 50ppb**
T250nm	**min. 65%**	Ni (Nickel)	**max. 20ppb**
T265nm	**min. 80%**	Pb (lead)	**max. 20ppb**
T275nm	**min. 90%**	Sn (Tin)	**max. 50ppb**
T280nm	**min. 95%**	Sr (Strontium)	**max. 50ppb**
T310nm	**min. 99%**	Zn (Zinc)	**max. 50ppb**
Residue after evaporation	**max. 0.0001%w/w**		

Filtered through 0.1µm, filled under inert gas.

Cat. No. 202278

Tetrahydrofuran (unstabilized)

LC-MS

Appearance	**Clear colorless liquid**	Bi (Bismuth)	**max. 0.1ppm**
Acidity (as Acetic acid)	**max. 0.002%**	Ca (Calcium)	**max. 0.05ppm**
Alkalinity (as Ammonia)	**max. 0.0005%**	Cd (Cadmium)	**max. 0.05ppm**
Assay (GC, on anhydrous basis)	**min. 99.9%**	Co (Cobalt)	**max. 0.05ppm**
Color (APHA)	**max. 10**	Cr (Chromium)	**max. 0.02ppm**
Peroxides (as H_2O_2)	**max. 0.01%**	Cu (Copper)	**max. 0.02ppm**
Residue after evaporation	**max. 0.0002%w/w**	Fe (Iron)	**max. 0.02ppm**
Water (KF)	**max. 0.03%w/w**	K (Potassium)	**max. 0.05ppm**
Grad. elution H.Peak at 254nm	**max. 0.015AU**	Li (Lithium)	**max. 0.1ppm**
Grad. elution H.Peak at 280nm	**max. 0.003AU**	Mg (Magnesium)	**max. 0.05ppm**
T230nm	**min. 35%**	Mn (Manganese)	**max. 0.02ppm**
T245nm	**min. 55%**	Mo (Molybdenum)	**max. 0.05ppm**
T270nm	**min. 88%**	Na (Sodium)	**max. 0.05ppm**
T280nm	**min. 90%**	Ni (Nickel)	**max. 0.02ppm**
T310nm	**min. 99%**	Pb (Lead)	**max. 0.02ppm**
LC-MS suitability test	**Complies**	Sn (Tin)	**max. 0.05ppm**
Ag (Silver)	**max. 0.1ppm**	Sr (Strontium)	**max. 0.05ppm**
Al (Aluminum)	**max. 0.05ppm**	Zn (Zinc)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 202207

Tetrahydrofuran (unstabilized)

HPLC-S

Appearance	**Clear colorless liquid**	Grad. elution H.Peak at 254nm	**max. 0.015AU**
Acidity (as Acetic acid)	**max. 0.002%**	Grad. elution H.Peak at 280nm	**max. 0.005AU**
Color (APHA)	**max. 10**	T230nm	**min. 35%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T245nm	**min. 50%**
Peroxides (as H_2O_2)	**max. 0.01%**	T254nm	**min. 70%**
Residue after evaporation	**max. 0.0002%w/w**	T280nm	**min. 95%**
Water (KF)	**max. 0.02%w/w**	T300nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 202289

Tetrahydrofuran (unstabilized)

HPLC-PLUS

Appearance	**Clear colorless liquid**	T230nm	**min. 35%**
Acidity (as Acetic acid)	**max. 0.003%**	T250nm	**min. 65%**
Color (APHA)	**max. 10**	T270nm	**min. 88%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T310nm	**min. 99%**
Peroxides (as H_2O_2)	**max. 0.01%**	Water (KF)	**max. 0.03%w/w**
Residue after evaporation	**max. 0.0001%w/w**		
T220nm	**min. 30%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 202206

Tetrahydrofuran (unstabilized)

HPLC

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0003%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	Water (KF)	**max. 0.03%w/w**
Color (APHA)	**max. 10**	T230nm	**min. 30%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T270nm	**min. 88%**
Peroxides (as H_2O_2)	**max. 0.01%**	T310nm	**min. 99%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 202238

Tetrahydrofuran (unstabilized)

Spectrofluopure

Appearance	**Clear colorless liquid**	Peroxides (as H_2O_2)	**max. 0.01%**
Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.0002%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.02%w/w**
F254nm (as Quinine)	**max. 1ppb**	T215nm	**min. 12%**
F365nm (as Quinine)	**max. 1ppb**	T230nm	**min. 35%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T300nm	**min. 98%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 202284

Tetrahydrofuran (unstabilized)

LV-GC for organic trace analysis

Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.03%w/w**
Color (APHA)	**max. 10**	Peroxides (as H_2O_2)	**max. 0.01%**
F254nm (as Quinine)	**max. 1ppb**	GC/ECD Dioxins, Furans & PCB's	**max. 10ng/L**
F365nm (as Quinine)	**max. 1ppb**	GC/ECD any Pesticide (as Lindane)	**max. 10ng/L**
Assay (GC, on anhydrous basis)	**min. 99.9%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
GC/FID suitability (as 2-Octanol)	**max. 10ng/ml**	Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	GC/ECD volatile impu. (as E. Dibromide)	**max. 5ng/ml**
PAH test (<2ppb by HPLC)	**Passes test**	T230nm	**min. 30%**
Residue after evaporation	**max. 0.0002%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 202224

Tetrahydrofuran (unstabilized)

DNA synthesis

Appearance	**Clear colorless liquid**	Peroxides (as H_2O_2)	**max. 0.01%**
Acidity (as Acetic acid)	**max. 0.003%**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.005%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**		

Cat. No. 202202

Tetrahydrofuran (unstabilized)

CP

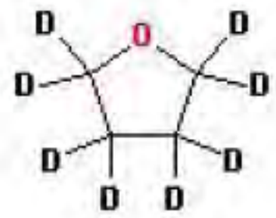
Appearance	**Clear liquid**	Residue after evaporation	**max. 0.005%w/w**
Color (APHA)	**max. 15**	Water (KF)	**max. 0.1%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**		
Peroxides (as H_2O_2)	**max. 0.025%**		

Tetrahydrofuran-d8, 100 atom%D

CAS [1693-74-9]; EC 216-898-4; D_8C_4O; M 80.15

D 0.98; m.p. -106 °C; b.p. 65-66 °C; UN 2056,3,II,F1

Danger H:224-319-335; P:210-241-303+361+353-305+351+338-405-501



Cat. No. 318695

Tetrahydrofuran-d8, 100 atom%D

For NMR

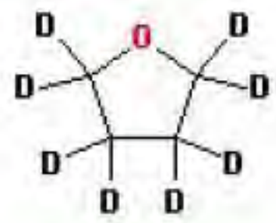
Enrichment (NMR)	**min. 99.95Atom%D**
Water (KF)	**max. 0.02% H_2O+D_2O**

Tetrahydrofuran-d8, 99.8 atom%D

CAS [1693-74-9]; EC 216-898-4; D_8C_4O; M 80.15

D 0.98; m.p. -106 °C; b.p. 65-66 °C; UN 2056,3,II,F1

Danger H:224-319-335; P:210-241-303+361+353-305+351+338-405-501



Cat. No. 318595

Tetrahydrofuran-d8, 99.8 atom%D

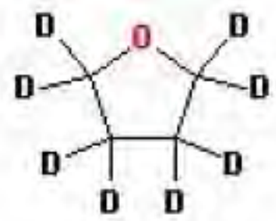
For NMR

Tetrahydrofuran-d8, 99.5 atom%D

CAS [1693-74-9]; EC 216-898-4; C_4D_8O; M 80.15

D 0.98; m.p. -106 °C; b.p. 65-66 °C; UN 2056,3,II,F1

Danger H:224-319-335; P:210-241-303+361+353-305+351+338-405-501



Cat. No. 318495

Tetrahydrofuran-d8, 99.5 atom%D

For NMR

Appearance	**Clear colorless liquid**
Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.05% H_2O+D_2O**

TG Buffer 10x concentrate

Synonym: *Tris-Glycine buffer*
Composition: *Tris Base 0.25M, Glycine 1.92M*

D 1.063;

EUH:210;

Cat. No. 203123

TG Buffer 10x concentrate

Molecular biology

Application: Commonly used for non-denaturing polyacrylamide gel electrophoresis of proteinsand for electro-blotting proteins in Western blot procedures. Also recommended for use with all nitrocellulose and nylon membranes.

Appearance	**Clear colorless liquid**	RNase activity	**Not detected**
pH of 10X Conc. (25°C)	**8.4-8.8**	Protease activity	**Not detected**
Conductivity of 10X Conc. (25°C)	**3-5mS/cm**		
DNase activity	**Not detected**		

TG-SDS Buffer 1X

Synonym: *Tris-Glycine-SDS buffer*
Composition: *TRIS base 0.025M, Glycine 0.192M, Sodium dodecyl sulfate (SDS) 0.1%*

D 1.0;

Cat. No. 203023

TG-SDS Buffer 1X

Molecular biology

Application: Commonly used as a running buffer in SDS-PAGE.

Appearance	**Clear colorless liquid**	RNase activity	**Not detected**
pH	**8.4-8.8**	Protease activity	**Not detected**
DNase activity	**Not detected**		

TG-SDS Buffer 10X

Synonym: *Tris-Glycine-SDS buffer*
Composition: *TRIS base 0.25M, Glycine 1.92M, Sodium dodecyl sulfate (SDS) 1%*

D 1.07;

EUH:210;

Cat. No. 205223

TG-SDS Buffer 10X

Molecular biology

Application: Commonly used as a running buffer in SDS-PAGE.

Appearance	**Clear colorless liquid**	RNase activity	**Not detected**
pH of 1X Conc. (25°C)	**8.4-8.8**	Protease activity	**Not detected**
pH of 10X Conc. (25°C)	**8.4-8.8**		
DNase activity	**Not detected**		

5'-Thio modifier C6

CAS [116919-17-6]; $C_{34}H_{45}N_2O_2PS$; M 576.78;

Cat. No. 175424

5'-Thio modifier C6

DNA synthesis

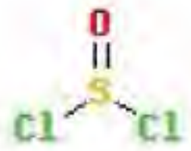
Assay (HPLC)	**min. 90%**
Solubility (0.1M in ACN)	**Complete, clear**

Thionyl chloride

CAS [7719-09-7]; EC 231-748-8; Cl_2OS; M 118.97

D 1.64; m.p. -105 °C; b.p. 76 °C; UN 1836,8,I,C1

Danger H:302-314-332; EUH:014-029; P:260-303+361+353-305+351+338-310



Cat. No. 215902

Thionyl chloride

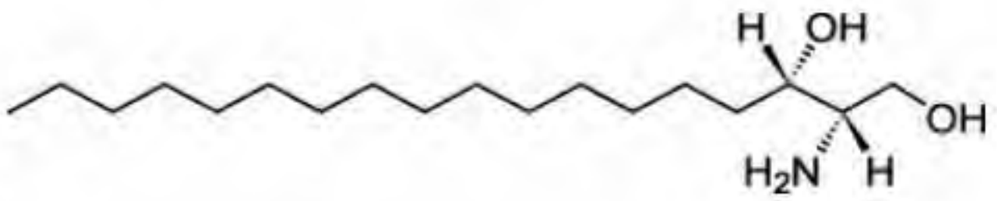
CP

Appearance	**Clear liquid**
Assay (T, argen.)	**97-103%w/w**

L-threo-Dihydrosphingosine (Safingol)

Synonym: Safingol; L-threo sphinganine (2S, 3S).

CAS [15639-50-6]; $C_{18}H_{39}NO_2$; M 301.51;



Cat. No. 310580

L-threo-Dihydrosphingosine (Safingol)

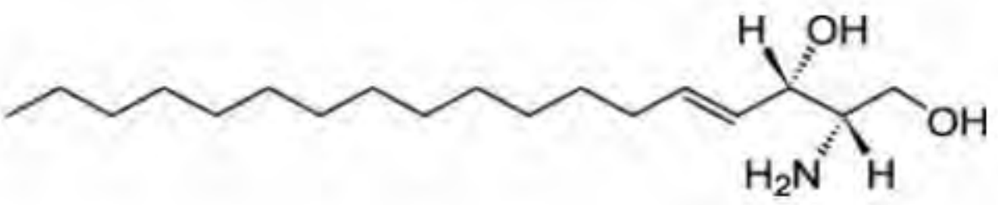
For synthesis

Appearance	**White to off-white solid**
Water (KF)	**max. 2%w/w**
Purity (TLC)	**min. 98%**
NMR H^1 spectrum	**Conforms to structure**

L-threo-Sphingosine (d18:1)

Synonym: (2S,3S,4E)-2-amino-1,3-octadec-4-enediol.

CAS [25695-95-8]; $C_{18}H_{37}NO_2$; M 299.5;



Cat. No. 053680

L-threo-Sphingosine (d18:1)

For synthesis

Appearance	**White to off-white solid**
Water (KF)	**max. 2%w/w**
Purity (TLC)	**min. 98%**
NMR H^1 spectrum	**Conforms to structure**

See also Sphingolipids & Phospholipids section, p. 459-474

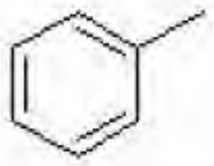
Toluene

Synonym: *Methyl benzene*

CAS [108-88-3]; EC 203-625-9; C_7H_8; M 92.14

D 0.87; m.p. -95 °C; b.p. 111 °C; UN 1294,3,II,F1

Danger H:225-304-315-336-373-361d; P:210-241-301+310-303+361+353-405-501



Cat. No. 201506

Toluene

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	T292nm	**min. 60%**
Color (APHA)	**max. 15**	T300nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 99.8%**	T350nm	**min. 98%**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 201538

Toluene

Spectrofluopure

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	T285nm	**min. 15%**
Color (APHA)	**max. 10**	T292nm	**min. 62%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T350nm	**min. 98%**
Residue after evaporation	**max. 0.0003%w/w**	F365nm (as Quinine)	**max. 2ppb**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 201584

Toluene

LV-GC for organic trace analysis

Appearance	**Clear colorless liquid**	PAH test (<2ppb by HPLC)	**Passes test**
Acidity (as Acetic acid)	**max. 0.003%**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Color (APHA)	**max. 10**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
F254nm (as Quinine)	**max. 1ppb**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
F365nm (as Quinine)	**max. 1ppb**	Oil index (any hydrocarbon C10-C40)	**max. 0.1mg/L**
Assay (GC, on anhydrous basis)	**min. 99.85%**	T292nm	**min. 60%**
GC/ECD Suitability (as H. Epoxide)	**max. 10ng/L**	Water (KF)	**max. 0.003%w/w**
		Residue after evaporation	**max. 0.0003%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 201560

Toluene

Dioxins, Pesti-S, Furans, PCB's analysis

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	GC/ECD Dioxins, Furans & PCB's	**max. 5ng/L**
Color (APHA)	**max. 10**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Assay (GC, on anhydrous basis)	**min. 99.8%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 201526

Toluene

Pesti-S

Appearance	**Clear colorless liquid**	GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**
Acidity (as Acetic acid)	**max. 0.003%**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.0003%w/w**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Water (KF)	**max. 0.01%w/w**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 201576

Toluene

VLSI

Color (APHA)	**max. 10**	Cu (Copper)	**max. 50ppb**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Fe (Iron)	**max. 50ppb**
Water (KF)	**max. 0.03%w/w**	Ga (Gallium)	**max. 50ppb**
Acidity (as Acetic acid)	**max. 0.0005%**	K (Potassium)	**max. 50ppb**
Alkalinity (as Ammonia)	**max. 0.0005%**	Li (Lithium)	**max. 50ppb**
Density (20/4°C)	**0.864-0.870gr/ml**	Mg (Magnesium)	**max. 50ppb**
Residue after evaporation	**max. 0.0005%w/w**	Mn (Manganese)	**max. 50ppb**
Ag (Silver)	**max. 50ppb**	Mo (Molybdenum)	**max. 50ppb**
Al (Aluminum)	**max. 50ppb**	Na (Sodium)	**max. 50ppb**
As (Arsenic)	**max. 50ppb**	Ni (Nickel)	**max. 50ppb**
Au (Gold)	**max. 50ppb**	Pb (lead)	**max. 50ppb**
B (Boron)	**max. 50ppb**	Sb (Antimony)	**max. 50ppb**
Ba (Barium)	**max. 50ppb**	Sn (Tin)	**max. 50ppb**
Be (Beryllium)	**max. 50ppb**	Sr (Strontium)	**max. 50ppb**
Ca (Calcium)	**max. 50ppb**	Ti (Titanium)	**max. 50ppb**
Cd (Cadmium)	**max. 50ppb**	V (Vanadium)	**max. 50ppb**
Co (Cobalt)	**max. 50ppb**	Zn (Zinc)	**max. 50ppb**
Cr (Chromium)	**max. 50ppb**	Particle count > 0.5µm	**max. 250P/ml**

Cat. No. 201510

Toluene

MOS

Color (APHA)	**max. 10**	Cr (Chromium)	**max. 10ppb**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Cu (Copper)	**max. 20ppb**
Residue after evaporation	**max. 0.0002%w/w**	Fe (Iron)	**max. 20ppb**
Water (KF)	**max. 0.03%w/w**	Ga (Gallium)	**max. 50ppb**
Acidity (as Acetic acid)	**max. 0.002%**	Ge (Germanium)	**max. 50ppb**
Subs. darkened by Sulfuric Acid	**Passes test**	Li (Lithium)	**max. 20ppb**
Sulfur compounds (as S)	**max. 0.003%**	K (Potassium)	**max. 50ppb**
Chloride (Cl)	**max. 2ppm**	Mg (Magnesium)	**max. 10ppb**
Heavy metals (as Pb)	**max. 0.5ppm**	Mn (Manganese)	**max. 10ppb**
Phosphate (PO_4)	**max. 0.5ppm**	Mo (Molybdenum)	**max. 20ppb**
Ag (Silver)	**max. 20ppb**	Ni (Nickel)	**max. 20ppb**
Al (Aluminum)	**max. 20ppb**	Pb (lead)	**max. 30ppb**
As (Arsenic)	**max. 10ppb**	Sb (Antimony)	**max. 10ppb**
Au (Gold)	**max. 20ppb**	Si (Silicon)	**max. 50ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 30ppb**
Ba (Barium)	**max. 10ppb**	Sr (Strontium)	**max. 10ppb**
Be (Beryllium)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Ca (Calcium)	**max. 100ppb**	V (Vanadium)	**max. 20ppb**
Cd (Cadmium)	**max. 20ppb**	Zn (Zinc)	**max. 20ppb**
Co (Cobalt)	**max. 20ppb**	Particle count > 0.5µm	**max. 100P/ml**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 201505

Toluene

AR

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 10**	Sulfur compounds (as S)	**max. 0.003%**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Water (KF)	**max. 0.03%w/w**
Subs. darkened by Sulfuric Acid	**Passes test**	Acidity (as Acetic acid)	**max. 0.002%**

Cat. No. 201551

Toluene

AR-S glass distilled

Acidity (as Acetic acid)	**max. 0.002%**	Cr (Chromium)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cu (Copper)	**max. 0.02ppm**
Assay (GC, on anhydrous basis)	**min. 99.7%**	Fe (Iron)	**max. 0.1ppm**
Subs. darkened by Sulfuric Acid	**Passes test**	Mg (Magnesium)	**max. 0.1ppm**
Water (KF)	**max. 0.03%w/w**	Mn (Manganese)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Ni (Nickel)	**max. 0.02ppm**
B (Boron)	**max. 0.02ppm**	Pb (Lead)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**
Cd (Cadmium)	**max. 0.05ppm**	Residue after evaporation	**max. 0.0003%w/w**
Co (Cobalt)	**max. 0.02ppm**		

Cat. No. 201559

Toluene

Supra dry

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Sulfur compounds (as S)	**max. 0.003%**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.001%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**		

Cat. No. 201547

Toluene

Extra dry

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.001%w/w**
Acidity (as Acetic acid)	**max. 0.002%**	Sulfur compounds (as S)	**max. 0.003%**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.003%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**		

Cat. No. 201553

Toluene

Extra dry / M. sieves

Acidity (as Acetic acid)	**max. 0.002%**	Water (KF)	**max. 0.001%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**		
Residue after evaporation	**max. 0.001%w/w**		

Cat. No. 201502

Toluene

CP

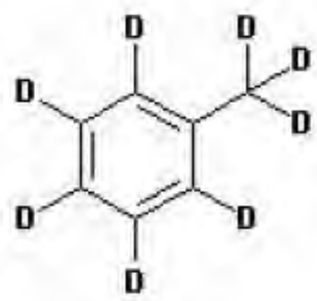
Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.05%w/w**
Assay (GC, on anhydrous basis)	**min. 99%**		
Residue after evaporation	**max. 0.005%w/w**		

Toluene-d8, 100 atom%D

CAS [2037-26-5]; EC 218-009-5; C_7D_8; M 100.18

D 0.94; m.p. -84 °C; b.p. 110 °C; UN 1294,3,II,F1

Danger H:225-304-315-336-373-361d; P:210-241-301+310-303+361+353-405-501



Cat. No. 318895 ***Toluene-d8, 100 atom%D***

For NMR

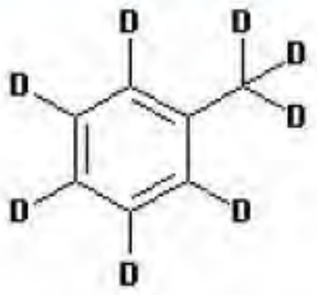
Enrichment (NMR)	**min. 99.95Atom%D**
Water (KF)	**max. 100% H_2O+D_2O**

Toluene-d8, 99.8 atom%D

CAS [2037-26-5]; EC 218-009-5; C_7D_8; M 100.18

D 0.94; m.p. -84 °C; b.p. 110 °C; UN 1294,3,II,F1

Danger H:225-304-315-336-373-361d; P:210-241-301+310-303+361+353-405-501



Cat. No. 305895 ***Toluene-d8, 99.8 atom%D***

For NMR

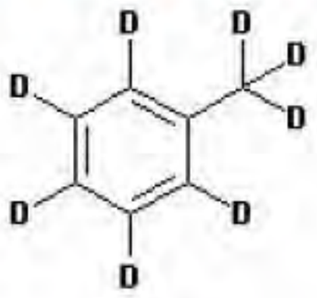
Appearance	**Clear colorless liquid**
Enrichment (NMR)	**min. 99.8Atom%D**
Water (KF)	**max. 0.02% H_2O+D_2O**

Toluene-d8, 99.5 atom%D

CAS [2037-26-5]; EC 218-009-5; C_7D_8; M 100.18

D 0.94; m.p. -84 °C; b.p. 110 °C; UN 1294,3,II,F1

Danger H:225-304-315-336-373-361d; P:210-241-301+310-303+361+353-405-501



Cat. No. 318795 ***Toluene-d8, 99.5 atom%D***

For NMR

Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.03% H_2O+D_2O**

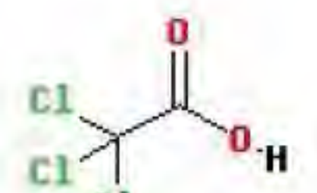
Trichloroacetic acid

Synonym: TCA

CAS [76-03-9]; EC 200-927-2; $C_2HCl_3O_2$; M 163.39

m.p. 52-58 °C; b.p. 196 °C; UN 1839,8,II,C4;

Danger H:314-410; P:260-303+361+353-305+351+338-310



Cat. No. 202105 ***Trichloroacetic acid***

AR

Appearance	**Colorless to white solid**	Iron (Fe)	**max. 0.001%**
Assay (T)	**99.0-101.0%w/w**	Nitrate (NO_3)	**max. 0.002%**
Water insolubles	**max. 0.01%**	Phosphate (PO_4)	**max. 0.0005%**
Residue after ignition	**max. 0.03%**	Sulfate (SO_4)	**max. 0.02%**
Chloride (Cl)	**max. 0.002%**	Subs. darkened by Sulfuric Acid	**Passes ACS test**
Heavy metals (as Pb)	**max. 0.002%**		

Cat. No. 202133

Trichloroacetic acid

Peptide synthesis

Appearance	**Colorless to white solid**	Iron (Fe)	**max. 0.001%**
Assay (T)	**99.5-100.5%w/w**	Heavy metals (as Pb)	**max. 0.001%**
Solubility (10% in Water)	**Complete, colorless**	Water (KF)	**max. 0.05%w/w**

Cat. No. 202123

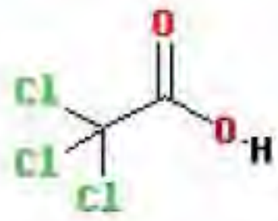
Trichloroacetic acid

Molecular biology

Appearance	**Colorless to white solid**	A260nm (0.5M)	**max. 1.6AU**
Assay (T)	**99.0-101.0%w/w**	A280nm (0.5M)	**max. 0.15AU**
Solubility (0.5M in Water)	**Complete, colorless**		

Trichloroacetic acid 40%w/v

CAS [76-03-9]; EC 200-927-2; $C_2HCl_3O_2$; M 163.39



Danger H:302-314-335-340; P:260-303+361+353-305+351+338-310-405-501

Cat. No. 202464

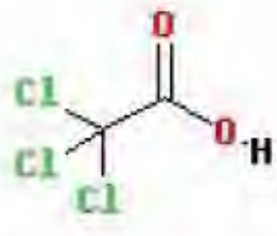
Trichloroacetic acid 40%w/v

Meets ACS/EP/BP/USP spec.

Identification A	**IR of TCA Conforms**	Appearance of solution	**Intensity of Sol. S NMT BY7**
Identification B	**Meets the requirements**	Chloride (Cl)	**max. 0.01%**
Identification C	**Solution S is acidic**	Heavy metals (as Pb)	**max. 0.002%**
Assay (T)	**39.0-41.0%w/v**	Iron (Fe)	**max. 0.001%**
Appearance	**Clear solution**	Sulphated ash	**max. 0.1%**

Trichloroacetic acid 20%w/v

CAS [76-03-9]; EC 200-927-2; $C_2HCl_3O_2$; M 163.39



Danger H:302-314-335-411; P:260-303+361+353-305+351+338-310-405-501

Cat. No. 203964

Trichloroacetic acid 20%w/v

Meets ACS/EP/BP/USP spec.

Identification A	**IR of TCA Conforms**	Appearance of solution	**Intensity of Sol. S NMT BY7**
Identification B	**Meets the requirements**	Chloride (Cl)	**max. 0.01%**
Identification C	**Solution S is acidic**	Heavy metals (as Pb)	**max. 0.002%**
Assay (T)	**19.0-21.0%w/v**	Iron (Fe)	**max. 0.001%**
Appearance	**Clear solution**	Sulphated ash	**max. 0.1%**

Trichloroacetic acid 6.1N

CAS [76-03-9]; EC 200-927-2; $C_2HCl_3O_2$; M 163.39

Danger H:314-410; P:260-303+361+353-305+351+338-310

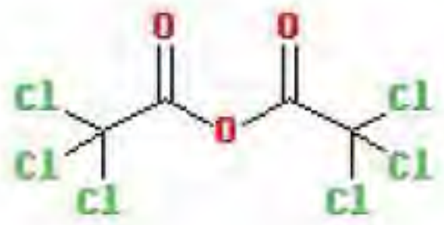
Cat. No. 202723

Trichloroacetic acid 6.1N

Molecular biology

Appearance	**Clear colorless solution**	A280nm (0.5M)	**max. 0.15AU**
Assay (T)	**6.0-6.2N**		
A260nm (0.5M)	**max. 1.6AU**		

Trichloroacetic anhydride



CAS [4124-31-6]; EC 223-925-3; $(Cl_3CCO)_2O$; M 308.76

D 1.69; b.p. 140°C/60 mmHg; UN 1839,8,II,C4;

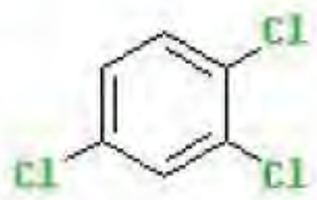
Danger H:314; P:260-303+361+353-305+351+338-310

Cat. No. 215880 ***Trichloroacetic anhydride***

For synthesis

Appearance	**Clear liquid**
Assay (T)	**min. 98%w/w**

1,2,4-Trichlorobenzene



CAS [120-82-1]; EC 204-428-0; $C_6H_3Cl_3$; M 181.45

D 1.45; m.p. 16 °C; b.p. 214 °C; UN 2321,6.1,III,T1

Warning; H:302-315-410; P:273-280-301+312-362

Cat. No. 207208 ***1,2,4-Trichlorobenzene***

Spectropure

Appearance	**Clear colorless liquid**	A310nm	**max. 0.50AU**
Color (APHA)	**max. 10**	A350nm	**max. 0.05AU**
Assay (GC, on anhydrous basis)	**min. 99%**	A375-400nm	**max. 0.01AU**
Water (KF)	**max. 0.02%w/w**		
A308nm	**max. 1.0AU**		

Cat. No. 207285 ***1,2,4-Trichlorobenzene***

Spectropure dry

Appearance	**Clear colorless liquid**	A310nm	**max. 0.50AU**
Color (APHA)	**max. 10**	A350nm	**max. 0.05AU**
Assay (GC, on anhydrous basis)	**min. 99%**	A375-400nm	**max. 0.01AU**
Water (KF)	**max. 0.001%w/w**		
A308nm	**max. 1.0AU**		

Cat. No. 207205 ***1,2,4-Trichlorobenzene***

AR

Appearance	**Clear colorless liquid**	Acidity (as HCl)	**max. 0.001%**
Assay (GC, on anhydrous basis)	**min. 99.0%**	Water (KF)	**max. 0.02%w/w**
Color (APHA)	**max. 10**		

1,3,5-Trichlorobenzene-d3, 98 atom%D

CAS [1198-60-3]; $C_6D_3Cl_3$; M 184.47; m.p. 63-65 °C

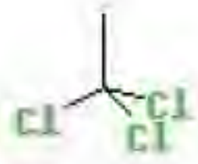
Warning; H:302; P:264-270-301+312-330-501

Cat. No. 319095 ***1,3,5-Trichlorobenzene-d3, 98 atom%D***

For NMR

Enrichment (NMR)	**min. 98Atom%D**

1,1,1-Trichloroethane



Synonym: *Chlorothene, Methylchloroform*

CAS [71-55-6]; EC 200-756-3; $C_2H_3Cl_3$; M 133.40

D 1.34; m.p. -33 °C; b.p. 74-76 °C; UN 2831,6.1,III,T1

Warning; H:332; EUH:059; P:261-271-304+340-312

Cat. No. 206110

1.1.1-Trichloroethane

MOS

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 10ppb**
Acidity (as HCl)	**max. 0.001%**	Fe (Iron)	**max. 50ppb**
Color (APHA)	**max. 10**	Li (Lithium)	**max. 30ppb**
Residue after evaporation	**max. 0.0005%w/w**	Mg (Magnesium)	**max. 30ppb**
Water (KF)	**max. 0.01%w/w**	Mn (Manganese)	**max. 20ppb**
Chloride (Cl)	**max. 2ppm**	Mo (Molybdenum)	**max. 30ppb**
Ag (Silver)	**max. 20ppb**	Ni (Nickel)	**max. 20ppb**
Al (Aluminum)	**max. 20ppb**	Pb (lead)	**max. 30ppb**
As (Arsenic)	**max. 20ppb**	Sb (Antimony)	**max. 30ppb**
B (Boron)	**max. 10ppb**	Si (Silicon)	**max. 50ppb**
Ba (Barium)	**max. 20ppb**	Sn (Tin)	**max. 30ppb**
Be (Beryllium)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Cd (Cadmium)	**max. 20ppb**	V (Vanadium)	**max. 50ppb**
Co (Cobalt)	**max. 20ppb**	Zn (Zinc)	**max. 50ppb**
Cr (Chromium)	**max. 20ppb**	Particle count > 0.5µm	**max. 100P/ml**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 206105

1.1.1-Trichloroethane

AR

Appearance	**Clear colorless liquid**	Assay (Corr. stabilizer/s)	**98.5-101.0%**
Acidity (as HCl)	**max. 0.002%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.01%w/w**

Cat. No. 206151

1.1.1-Trichloroethane

AR-S glass distilled

Appearance	**Clear colorless liquid**	Co (Cobalt)	**max. 0.02ppm**
Color (APHA)	**max. 10**	Cr (Chromium)	**max. 0.02ppm**
Acidity (as HCl)	**max. 0.002%**	Cu (Copper)	**max. 0.02ppm**
Assay (Corr. stabilizer/s)	**98.5-101.0%**	Fe (Iron)	**max. 0.1ppm**
Residue after evaporation	**max. 0.0005%w/w**	Mg (Magnesium)	**max. 0.1ppm**
Water (KF)	**max. 0.01%w/w**	Mn (Manganese)	**max. 0.02ppm**
Al (Aluminum)	**max. 0.5ppm**	Ni (Nickel)	**max. 0.02ppm**
B (Boron)	**max. 0.02ppm**	Pb (Lead)	**max. 0.1ppm**
Ba (Barium)	**max. 0.1ppm**	Sn (Tin)	**max. 0.1ppm**
Ca (Calcium)	**max. 0.5ppm**	Zn (Zinc)	**max. 0.1ppm**
Cd (Cadmium)	**max. 0.05ppm**		

Cat. No. 206147

1.1.1-Trichloroethane

Extra dry

Acidity (as Acetic acid)	**max. 0.002%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 15**	Water (KF)	**max. 0.005%w/w**
Assay (Corr. stabilizer/s)	**min. 94%**		

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Cat. No. 206102

1,1,1-Trichloroethane

CP

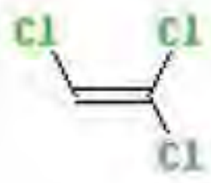
Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.01%w/w**
Color (APHA)	**max. 15**	Water (KF)	**max. 0.02%w/w**
Assay (Corr. stabilizer/s)	**min. 88%**		

Trichloroethylene (stabilized)

Synonym: *TCE, Trichloroethene*

CAS [79-01-6]; EC 201-167-4; C_2HCl_3; M 131.39

D 1.46; m.p. -86 °C; b.p. 87 °C; UN 1710,6.1,III,T1



Danger H:315-319-336-341-350-412; P:261-280-305+351+338

Cat. No. 202506

Trichloroethylene (stabilized)

HPLC

Appearance	**Clear colorless liquid**	T280nm	**min. 5%**
Acidity (as HCl)	**max. 0.001%**	T300nm	**min. 15%**
Alkalinity (as Ammonia)	**max. 0.001%**	T320nm	**min. 70%**
Assay (GC, corr. stabilizers)	**min. 99.8%**	T350nm	**min. 85%**
Residue after evaporation	**max. 0.0005%w/w**	T400nm	**min. 98%**
Water (KF)	**max. 0.01%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 202510

Trichloroethylene (stabilized)

MOS

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 20ppb**
Acidity (as HCl)	**max. 0.001%**	Fe (Iron)	**max. 50ppb**
Alkalinity (as Ammonia)	**max. 0.001%**	Li (Lithium)	**max. 50ppb**
Assay (GC, corr. stabilizers)	**min. 99%**	Mg (Magnesium)	**max. 100ppb**
Color (APHA)	**max. 10**	Mn (Manganese)	**max. 20ppb**
Residue after evaporation	**max. 0.0005%w/w**	Mo (Molybdenum)	**max. 50ppb**
Water (KF)	**max. 0.005%w/w**	Ni (Nickel)	**max. 20ppb**
Ag (Silver)	**max. 20ppb**	Pb (lead)	**max. 50ppb**
Al (Aluminum)	**max. 50ppb**	Sb (Antimony)	**max. 20ppb**
As (Arsenic)	**max. 10ppb**	Si (Silicon)	**max. 100ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 50ppb**
Ba (Barium)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Be (Beryllium)	**max. 20ppb**	V (Vanadium)	**max. 50ppb**
Cd (Cadmium)	**max. 20ppb**	Zn (Zinc)	**max. 50ppb**
Co (Cobalt)	**max. 20ppb**	Particle count > 0.5µm	**max. 100P/ml**
Cr (Chromium)	**max. 20ppb**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 202505

Trichloroethylene (stabilized)

AR

Appearance	**Clear colorless liquid**	Alkalinity (as Ammonia)	**max. 0.0006%**
Assay (GC, corr. stabilizers)	**min. 99.5%**	Heavy metals (as Pb)	**max. 0.0001%**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.02%w/w**
Acidity (as HCl)	**max. 0.001%**	Residue after evaporation	**max. 0.001%w/w**

Cat. No. 202502

Trichloroethylene (stabilized)

CP

Appearance	**Clear colorless liquid**
Assay (GC, corr. stabilizers)	**min. 99%**
Residue after evaporation	**max. 0.005%w/w**

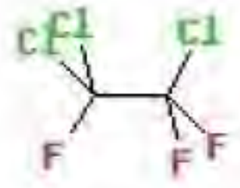
1,1,2-Trichlorotrifluoroethane

Synonym: *1,1,2-Trichloro-1,2,2-trifluoroethane, 1,1,2-Trichloro-trifluoroethane*

CAS [76-13-1]; EC 200-936-1; $C_2Cl_3F_3$; M 187.38

D 1.58; m.p. -35 °C; b.p. 47.6 °C; UN 3082,9,III,M6

Danger H:411; EUH:059; P:273-391



Cat. No. 061806

1.1.2-Trichlorotrifluoroethane

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.01%w/w**
Acidity (as HCl)	**max. 0.001%**	T240nm	**min. 45%**
Color (APHA)	**max. 10**	T245nm	**min. 80%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T260nm	**min. 98%**
Residue after evaporation	**max. 0.0003%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 061838

1.1.2-Trichlorotrifluoroethane

Spectrofluopure

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.005%w/w**
Acidity (as HCl)	**max. 0.002%**	T235nm	**min. 10%**
Color (APHA)	**max. 10**	T240nm	**min. 50%**
F254nm (as Quinine)	**max. 0.3ppb**	T245nm	**min. 80%**
F365nm (as Quinine)	**max. 0.2ppb**	T250nm	**min. 90%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T260nm	**min. 98%**
Residue after evaporation	**max. 0.0002%w/w**	Hydrocarbons (IR, Std. EPA)	**max. 50ppm**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 061826

1.1.2-Trichlorotrifluoroethane

Pesti-S

Appearance	**Clear colorless liquid**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Acidity (as HCl)	**max. 0.002%**	Residue after evaporation	**max. 0.0002%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.01%w/w**
Assay (GC, on anhydrous basis)	**min. 99.9%**		
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 061805

1.1.2-Trichlorotrifluoroethane

AR

Appearance	**Clear colorless liquid**	Assay (GC, on anhydrous basis)	**min. 99.8%**
Acidity (as HCl)	**max. 0.002%**	Residue after evaporation	**max. 0.0005%w/w**
Color (APHA)	**max. 5**	Water (KF)	**max. 0.01%w/w**

Cat. No. 061802

1.1.2-Trichlorotrifluoroethane

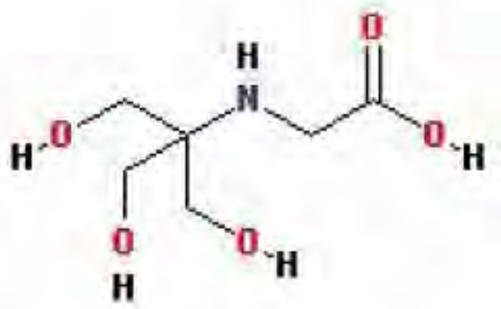
CP

Assay (GC, on anhydrous basis)	**min. 99%**
Residue after evaporation	**max. 0.01%w/w**
Water (KF)	**max. 0.05%w/w**

Tricine

Synonym: *N-[Tris(hydroxymethyl)methyl]glycine*

CAS [5704-04-1]; EC 227-193-6; $C_6H_{13}NO_5$; M 179.17



Cat. No. 203423

Tricine

Molecular biology

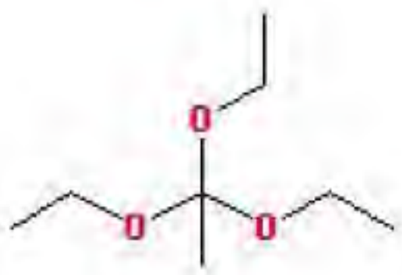
Application: Commonly used as a component of the Tris-Tricine-SDS (TTS) running buffer, with SDS-PAGE of proteins using the Shagger and von Jagow method. The method is designed for the separation of low molecular weight proteins and differs from the Laemmli method in that the Glycine is replaced with Tricine. This biological buffer has a usable pH range of 7.4 to 8.8.

Appearance	**White powder**	Assay (T)	**98.0-102.0%w/w**
Solubility (10% in Water)	**Clear colorless solution**	DNase activity	**Not detected**
Loss on drying (105°C)	**max. 0.5%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.002%**	Protease activity	**Not detected**
pH (10% in Water)	**4.5-5.5**		

Triethyl orthoacetate

CAS [78-39-7]; EC 201-112-4; $C_8H_{18}O_3$; M 162.22

D 0.885; b.p. 142 °C; UN 3272,3,III,F1;



Cat. No. 215199

Triethyl orthoacetate

General reagent

Identity (GC)	**Conform**
Appearance	**Clear colorless liquid**
Purity (GC, on anhydrous basis)	**96.0-100.0%**

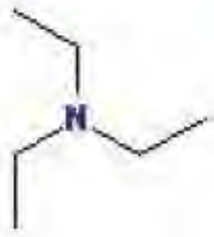
Triethylamine

Synonym: *N,N-Diethylethanamine, TEA*

CAS [121-44-8]; EC 204-469-4; $C_6H_{15}N$; M 101.19

D 0.728; m.p. -115 °C; b.p. 90 °C; UN 1296,3 (8),II,FC

Danger H:225-302-312-314-332; P:210-303+361+353-305+351+338-310



Cat. No. 204141

Triethylamine

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	MS-ESI- (as Na-Taurocholate)	**max. 100ppb**
Assay (GC, on anhydrous basis)	**min. 99.8%**	Al (Aluminum)	**max. 0.2ppm**
T250nm (0.1M)	**min. 40%**	Ca (Calcium)	**max. 0.5ppm**
T260nm (0.1M)	**min. 87%**	Fe (Iron)	**max. 0.1ppm**
T270nm (0.1M)	**min. 96%**	K (Potassium)	**max. 0.5ppm**
T280nm (0.1M)	**min. 98%**	Mg (Magnesium)	**max. 0.1ppm**
Grad. elution H.Peak at 254nm	**max. 0.005AU**	Na (Sodium)	**max. 0.5ppm**
Water (KF)	**max. 0.05%w/w**	Residue after evaporation	**max. 0.005%w/w**

Microfiltered through 0.1µm, bottled under inert gas.

Cat. No. 204106

Triethylamine

HPLC

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.1%w/w**
Assay (GC, on anhydrous basis)	**min. 99.6%**	T250nm (0.1M)	**min. 10%**
Residue after evaporation	**max. 0.001%w/w**	T254nm (0.1M)	**min. 75%**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 204105

Triethylamine

AR

Appearance	**Clear colorless liquid**	Residue after evaporation	**max. 0.002%w/w**
Other amines	**max. 0.2%**	Water (KF)	**max. 0.1%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**		

Cat. No. 204136

Triethylamine

Meets USP spec.

Appearance	**Clear colorless liquid**	Ni (Nickel)	**max. 1.5ppm**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Os (Osmium)	**max. 0.5ppm**
A285nm (2% in HCl/MeOH/$CHCl_3$ 1:10:38)	**max. 0.01AU**	Pd (Palladium)	**max. 1ppm**
		Pt (Platinum)	**max. 1ppm**
Cr (Chromium)	**max. 1ppm**	Rh (Rhodium)	**max. 1ppm**
Cu (Copper)	**max. 1ppm**	Ru (Ruthenium)	**max. 1ppm**
Fe (Iron)	**max. 3ppm**	V (Vanadium)	**max. 1ppm**
Ir (Iridium)	**max. 1ppm**	Zn (Zinc)	**max. 1ppm**
Mn (Manganese)	**max. 0.5ppm**		
Mo (Molybdenum)	**max. 1ppm**		

Cat. No. 204147

Triethylamine

Extra dry

Appearance	**Clear colorless liquid**
Assay (GC, on anhydrous basis)	**min. 99.0%**
Residue after evaporation	**max. 0.003%w/w**
Water (KF)	**max. 0.05%w/w**

Cat. No. 204102

Triethylamine

CP

Appearance	**Clear liquid**
Assay (GC, on anhydrous basis)	**min. 99%**
Water (KF)	**max. 0.2%w/w**

Triethylammonium acetate, see TEAA, p. 327

Trifluoroacetic acid

Synonym: *TFA*

CAS [76-05-1]; EC 200-929-3; $C_2HF_3O_2$; M 114.02

D 1.48; m.p. -15 °C; b.p. 72 °C; UN 2699,8,I,C3

Danger H:314-332-412; P:260-303+361+353-305+351+338-310

Cat. No. 202333

Trifluoroacetic acid

Peptide synthesis

Appearance	**Clear colorless liquid**	A260nm	**max. 1AU**
Residue after evaporation	**max. 0.002%w/w**	A300nm	**max. 0.03AU**
Assay (T)	**99.9-100.5%w/w**	Identification	**Passes test**
Water (KF)	**max. 0.02%w/w**	Density (20/4°C)	**1.475-1.500gr/ml**

Cat. No. 202341

Trifluoroacetic acid

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	T320nm	**min. 96%**
Color (APHA)	**max. 10**	F254nm (25%, as Quinine)	**max. 1ppb**
Assay (T, dry)	**min. 99.95%w/w**	F365nm (25%, as Quinine)	**max. 1ppb**
Water (KF)	**max. 0.02%w/w**	Al (Aluminum)	**max. 0.05ppm**
MS-ESI+ (0.1%, as Reserpine)	**max. 20ppb**	Ca (Calcium)	**max. 0.2ppm**
Grad. elution H.Peak at 254nm	**max. 0.002AU**	Fe (Iron)	**max. 0.3ppm**
Grad. elution drift at 254nm	**max. 0.010AU**	K (Potassium)	**max. 0.1ppm**
T260nm	**min. 10%**	Mg (Magnesium)	**max. 0.05ppm**
T270nm	**min. 79%**	Na (Sodium)	**max. 0.5ppm**
T280nm	**min. 93%**	Residue after evaporation	**max. 0.001%w/w**
T300nm	**min. 95%**		

Filtered through 0.1µm, filled under inert gas.

Cat. No. 202378

Trifluoroacetic acid

LC-MS

Appearance	**Clear colorless liquid**	T270nm	**min. 79%**
Color (APHA)	**max. 10**	T280nm	**min. 93%**
MS-ESI+ (0.1%, as Reserpine)	**max. 50ppb**	T300nm	**min. 95%**
Assay (T)	**min. 99.95%w/w**	T320nm	**min. 96%**
Water (KF)	**max. 0.02%w/w**	Residue after evaporation	**max. 0.001%w/w**
Grad. elution H.Peak at 254nm	**max. 0.002AU**		
Grad. elution drift at 254nm	**max. 0.010AU**		
T260nm	**min. 10%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 202306

Trifluoroacetic acid

HPLC

Appearance	**Clear colorless liquid**	T260nm	**min. 15%**
Color (APHA)	**max. 10**	T280nm	**min. 90%**
Residue after evaporation	**max. 0.002%w/w**	T300nm	**min. 95%**
Assay (T)	**min. 99.95%w/w**		
Water (KF)	**max. 0.02%w/w**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 202305

Trifluoroacetic acid

AR

Appearance	**Clear colorless liquid**
Residue after evaporation	**max. 0.002%w/w**
Assay (T)	**99.9-101.0%w/w**
Water (KF)	**max. 0.05%w/w**

Cat. No. 202302

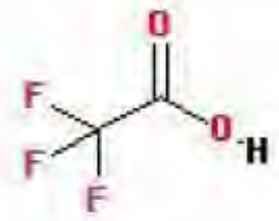
Trifluoroacetic acid

CP

Appearance	**Clear, colorless liquid**
Assay (T)	**99.9-101.0%w/w**
Water (KF)	**max. 0.10%w/w**

Trifluoroacetic acid 2%

D 1.01; UN 1760,8,III,C9;



Warning; H:315-319; P:280-305+351+338-321-332+313-337+313

Cat. No. 272206

Trifluoroacetic acid 2%

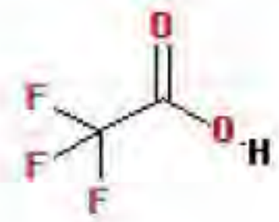
HPLC

Appearance	**Clear colorless liquid**	T255nm	**min. 90%**
Assay (T)	**1.95-2.05%v/v**	T265nm	**min. 95%**
Purity of TFA	**min. 99.9%**	Grad. elution H.Peak at 254nm	**max. 0.005AU**
Filter test	**Passes test**	Grad. elution drift at 254nm	**max. 0.015AU**
T245nm	**min. 60%**		

Filtered through 0.2µm, filled under inert gas.

Trifluoroacetic acid 0.1%

D 1.0;



Cat. No. 232741

Trifluoroacetic acid 0.1%

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	T230nm	**min. 85%**
Assay (T)	**0.095-0.105%v/v**	T254nm	**min. 99%**
Residue after evaporation	**max. 0.0001%w/w**	Al (Aluminum)	**max. 30ppb**
MS-ESI+ (as Reserpine)	**max. 20ppb**	Ca (Calcium)	**max. 100ppb**
Grad. elution H.Peak at 254nm	**max. 0.002AU**	Fe (Iron)	**max. 50ppb**
Grad. elution drift at 254nm	**max. 0.010AU**	K (Potassium)	**max. 100ppb**
F254nm (as Quinine)	**max. 0.5ppb**	Mg (Magnesium)	**max. 30ppb**
F365nm (as Quinine)	**max. 0.5ppb**	Na (Sodium)	**max. 100ppb**
T210nm	**min. 25%**		

Filtered through 0.1µm, filled under inert gas.

Cat. No. 232778

Trifluoroacetic acid 0.1%

LC-MS

Appearance	**Clear colorless liquid**	Ca (Calcium)	**max. 0.05ppm**
Grad. elution H.Peak at 254nm	**max. 0.002AU**	K (Potassium)	**max. 0.05ppm**
Grad. elution drift at 254nm	**max. 0.01AU**	Mg (Magnesium)	**max. 0.05ppm**
Assay (T)	**0.095-0.105%v/v**	Na (Sodium)	**max. 0.05ppm**
Purity of TFA	**min. 99.9%**	Fe (Iron)	**max. 0.02ppm**
LC-MS suitability test	**Complies**	Pb (Lead)	**max. 0.02ppm**
T210nm	**min. 25%**		
T230nm	**min. 85%**		
T254nm	**min. 99%**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 232706

Trifluoroacetic acid 0.1%

HPLC

Appearance	**Clear colorless liquid**	T254nm	**min. 98%**
Assay (T)	**0.095-0.105%v/v**	T270nm	**min. 99%**
T215nm	**min. 40%**	F254nm (as Quinine)	**max. 1ppb**
T235nm	**min. 85%**	F365nm (as Quinine)	**max. 1ppb**
T245nm	**min. 95%**		

Filtered through 0.2µm, filled under inert gas.

Trifluoroacetic acid 0.1% in Acetonitrile

D 0.78; UN 1993,3,II,F1;

Danger H:225-312-319-332; P:210-241-261-303+361+353-305+351+338

Cat. No. 019541

Trifluoroacetic acid 0.1% in Acetonitrile

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	T230nm	**min. 50%**
Assay (T)	**0.095-0.105%v/v**	T254nm	**min. 90%**
Water (KF)	**max. 0.02%w/w**	Al (Aluminum)	**max. 30ppb**
Residue after evaporation	**max. 0.0001%w/w**	Ca (Calcium)	**max. 100ppb**
MS-ESI+ (as Reserpine)	**max. 20ppb**	Fe (Iron)	**max. 50ppb**
Grad. elution H.Peak at 254nm	**max. 0.002AU**	K (Potassium)	**max. 100ppb**
Grad. elution drift at 254nm	**max. 0.030AU**	Mg (Magnesium)	**max. 30ppb**
F254nm (as Quinine)	**max. 0.5ppb**	Na (Sodium)	**max. 100ppb**
F365nm (as Quinine)	**max. 0.5ppb**		

Filtered through 0.1µm, filled under inert gas.

Cat. No. 019578

Trifluoroacetic acid 0.1% in Acetonitrile

LC-MS

Appearance	**Clear colorless liquid**	T254nm	**min. 85%**
Assay (T)	**0.095-0.105%v/v**	Ca (Calcium)	**max. 0.05ppm**
Water (KF)	**max. 0.05%w/w**	K (Potassium)	**max. 0.05ppm**
Residue after evaporation	**max. 0.0003%w/w**	Mg (Magnesium)	**max. 0.05ppm**
MS-ESI+ (as Reserpine)	**max. 50ppb**	Na (Sodium)	**max. 0.05ppm**
Grad. elution H.Peak at 254nm	**max. 0.003AU**	Fe (Iron)	**max. 0.02ppm**
Grad. elution drift at 254nm	**max. 0.050AU**	Pb (Lead)	**max. 0.02ppm**
T230nm	**min. 40%**		

Cat. No. 019506

Trifluoroacetic acid 0.1% in Acetonitrile

HPLC

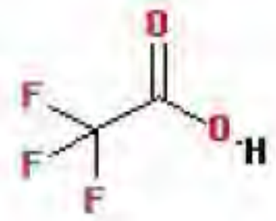
Appearance	**Clear colorless liquid**	T245nm	**min. 78%**
Assay (T)	**0.095-0.105%v/v**	T254nm	**min. 90%**
Purity of ACN	**min. 99.95%**	T270nm	**min. 99%**
Purity of TFA	**min. 99.95%**		
Water (KF)	**max. 0.02%w/w**		
T235nm	**min. 60%**		

Filtered through 0.2µm, filled under inert gas.

Trifluoroacetic acid 0.075% in Acetonitrile

D 0.78; UN 1993,3,II,F1;

Danger H:225-312-319-332; P:210-241-261-303+361+353-305+351+338



Cat. No. 211641

Trifluoroacetic acid 0.075% in Acetonitrile

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	T230nm	**min. 55%**
Assay (T)	**0.070-0.080%v/v**	T254nm	**min. 93%**
Water (KF)	**max. 0.02%w/w**	Al (Aluminum)	**max. 30ppb**
Residue after evaporation	**max. 0.0001%w/w**	Ca (Calcium)	**max. 100ppb**
MS-ESI+ (as Reserpine)	**max. 20ppb**	Fe (Iron)	**max. 50ppb**
Grad. elution H.Peak at 254nm	**max. 0.002AU**	K (Potassium)	**max. 100ppb**
Grad. elution drift at 254nm	**max. 0.030AU**	Mg (Magnesium)	**max. 30ppb**
F254nm (as Quinine)	**max. 0.5ppb**	Na (Sodium)	**max. 100ppb**
F365nm (as Quinine)	**max. 0.5ppb**		

Filtered through 0.1µm, filled under inert gas.

Cat. No. 211678

Trifluoroacetic acid 0.075% in Acetonitrile

LC-MS

Appearance	**Clear colorless liquid**	Ca (Calcium)	**max. 0.05ppm**
Grad. elution H.Peak at 254nm	**max. 0.005AU**	K (Potassium)	**max. 0.05ppm**
Assay (T)	**0.070-0.080%v/v**	Mg (Magnesium)	**max. 0.05ppm**
LC-MS suitability test	**Complies**	Na (Sodium)	**max. 0.05ppm**
T230nm	**min. 50%**	Fe (Iron)	**max. 0.02ppm**
T254nm	**min. 90%**	Pb (Lead)	**max. 0.02ppm**

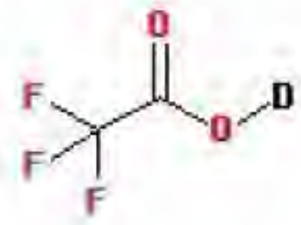
Filtered through 0.2µm, filled under inert gas.

Trifluoroacetic acid-d, 99.8 atom%D

CAS [599-00-8]; EC 209-961-2; $C_2DF_3O_2$; M 115.03

D 1.5; m.p. -15 °C; b.p. 75 °C; UN 2699,8,I,C3

Danger H:314-332; P:260-303+361+353-305+351+338-310-405-501



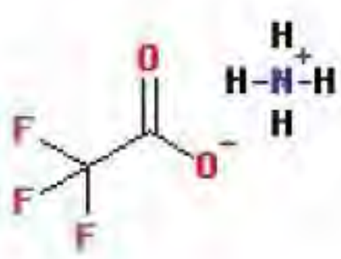
Cat. No. 318995

Trifluoroacetic acid-d, 99.8 atom%D

For NMR

Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.05% H_2O+D_2O**

Trifluoroacetic acid ammonium salt pH=10



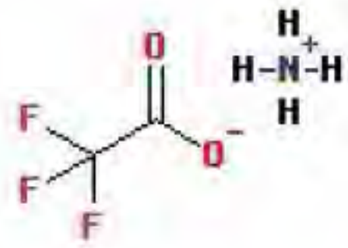
Cat. No. 221506

Trifluoroacetic acid ammonium salt pH=10

HPLC

Appearance	**Clear colorless liquid**	T220nm	**min. 55%**
Color (APHA)	**max. 10**	T230nm	**min. 80%**
Assay (T)	**14.5-15.5mM**	T254nm	**min. 98%**
pH	**9.9-10.1**		

Trifluoroacetic acid ammonium salt pH=7



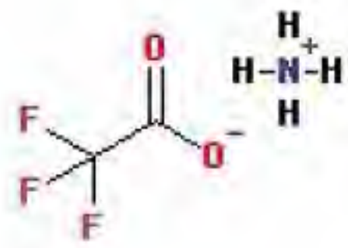
Cat. No. 221406

Trifluoroacetic acid ammonium salt pH=7

HPLC

Appearance	**Clear colorless liquid**	T220nm	**min. 55%**
Color (APHA)	**max. 10**	T230nm	**min. 80%**
Assay (T)	**14.5-15.5mM**	T254nm	**min. 98%**
pH	**6.9-7.1**		

Trifluoroacetic acid ammonium salt pH=5



Cat. No. 221306

Trifluoroacetic acid ammonium salt pH=5

HPLC

Appearance	**Clear colorless liquid**	T220nm	**min. 55%**
Color (APHA)	**max. 10**	T230nm	**min. 80%**
Assay (T)	**14.5-15.5mM**	T254nm	**min. 98%**
pH	**4.9-5.1**		

Trifluoroacetic acid ammonium salt pH=2

Cat. No. 221206

Trifluoroacetic acid ammonium salt pH=2

HPLC

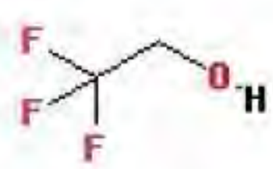
Appearance	**Clear colorless liquid**	T220nm	**min. 55%**
Color (APHA)	**max. 10**	T230nm	**min. 80%**
Assay (T)	**14.5-15.5mM**	T254nm	**min. 98%**
pH	**1.9-2.1**		

2,2,2-Trifluoroethanol

CAS [75-89-8]; EC 200-913-6; $C_2H_3F_3O$; M 100.04

D 1.39; m.p. -45 °C; b.p. 77-80 °C; UN 1993,3,III,F1

Danger H:226-301-312; P:210-241-301+310-303+361+353



Cat. No. 209406

2,2,2-Trifluoroethanol

HPLC

Appearance	**Clear colorless liquid**	T200nm	**min. 75%**
Assay (GC, on anhydrous basis)	**min. 99.9%**	T220nm	**min. 85%**
Water (KF)	**max. 0.1%w/w**	T254nm	**min. 95%**

Filtered through 0.2µm, filled under inert gas.

Trifluoromethane sulfonic anhydride

Synonym: *Triflic anhydride*

CAS [358-23-6]; EC 206-616-8; $C_2F_6O_5S_2$; M 282.13

D 1.7; b.p. 80 °C; UN 1760,8,II,C3;

Danger H:314; P:260-303+361+353-305+351+338-310

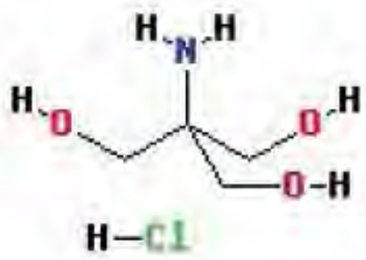
Cat. No. 204905

Trifluoromethane sulfonic anhydride

AR

Assay (T)	**min. 98%w/w**

TRIS HCl



Synonym: *TRIS hydrochloride, Tris(hydroxymethyl)aminomethane hydrochloride*

CAS [1185-53-1]; EC 214-684-5; $C_4H_{11}NO_3xHCl$; M 157.60

Warning; H:315-319-335; P:261-280-305+351+338

Cat. No. 203323

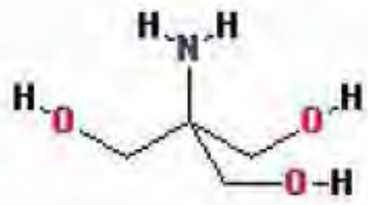
TRIS HCl

Molecular biology

Application: Commonly used as a buffering medium for electrophoresis, molecular biology, andcell culture applications.

Appearance	**White crystalline powder**	A280nm (0.5M)	**max. 0.05AU**
Loss on drying (105°C)	**max. 0.5%**	DNase activity	**Not detected**
pH (0.5M in water)	**3.5-5.5**	RNase activity	**Not detected**
Assay (T, argen.)	**99-101%w/w**	Protease activity	**Not detected**
A260nm (0.5M)	**max. 0.05AU**		

Tris(hydroxymethyl)aminomethane



Synonym: *2-Amino-2-(hydroxymethyl)-1,3-propanediol, Tris base, Trometamol, Tromethamine.*

CAS [77-86-1]; EC 201-064-4; $C_4H_{11}NO_3$; M 121.14

P:261

Cat. No. 200964

Tris(hydroxymethyl)aminomethane

Meets ACS/EP/BP/USP spec.

Appearance	**White to-off white solid**	Related substances (TLC)	**max. 1.0%**
Assay (T)	**99.0-100.5%w/w**	Chloride (Cl)	**max. 0.010%**
Identification A	**IR Conforms (USP, EP/BP)**	Heavy metals (as Pb)	**max. 0.0001%**
Identification B	**Meets the requirements (USP)**	Iron (Fe)	**max. 0.001%**
		Loss on drying (105°C)	**max. 0.5%**
Identification C	**Meets the requirements (USP)**	Residue after ignition	**max. 0.1%**
		Melting range	**168-172°C**
Identification D	**Solution S is strongly alkaline**	Endotoxin activity	**max. 0.03EU/mg**
		Organic volatile impurities	**Meets the requirements**
Identification E	**TLC meets the requirements**		
Appearance of solution	**Clear colorless solution 5%**		
pH (5% in water)	**10.0-11.5**		

Cat. No. 200903

Tris(hydroxymethyl)aminomethane

Meets EP/BP spec.

Appearance	**White to off-white crystalline powder**	Related substances (TLC)	**max. 1.0%**
Assay (T)	**99.0-100.5%w/w**	Chloride (Cl)	**max. 0.01%**
Identification B	**Passes EP/BP test**	Heavy metals (as Pb)	**max. 0.001%**
Identification C	**Passes EP/BP test**	Iron (Fe)	**max. 0.001%**
Melting point	**168-174°C**	Loss on drying (105°C)	**max. 0.5%**
Identity (IR)	**Conforms to standard**	Residue after ignition	**max. 0.1%**
Appearance of solution	**Clear colorless solution**	Endotoxin activity	**max. 0.03EU/mg**
pH (5% in water)	**10.0-11.5**		

Cat. No. 200936

Tris(hydroxymethyl)aminomethane

Meets USP spec.

Identification A	**Passes USP test**	pH (5% in water)	**10.0-11.5**
Identification B	**Passes USP test**	Residue after ignition	**max. 0.1%**
Identification C	**Passes USP test**	Loss on drying (105°C)	**max. 1.0%**
Appearance	**White crystalline powder**	Endotoxin activity	**max. 0.03EU/mg**
Assay (T)	**99.0-101.0%w/w**	Organic volatile impurities	**Meets the requirements**
Melting range	**168-172°C**		

Cat. No. 200923

Tris(hydroxymethyl)aminomethane

Molecular biology

Application: Commonly used for the preparation of reaction buffers, useful pH range 7-9.

Appearance	**White crystalline powder**	Heavy metals (as Pb)	**max. 0.0005%**
Assay (T)	**99.8-100.2%w/w**	Iron (Fe)	**max. 0.0001%**
pH (0.5M in water)	**10-11.5**	DNase activity	**Not detected**
Solubility (0.5M in Water)	**Clear colorless solution**	RNase activity	**Not detected**
Loss on drying (105°C)	**max. 0.3%**	Protease activity	**Not detected**
A280nm (0.5M)	**max. 0.05AU**		

TRIS-EDTA Buffer

Synonym: *TRIS - EDTA buffer*
Composition: *Tris 10mM; EDTA 1mM*

CAS [38641-82-6]; D 1.0;

Cat. No. 201223

TRIS-EDTA Buffer

Molecular biology

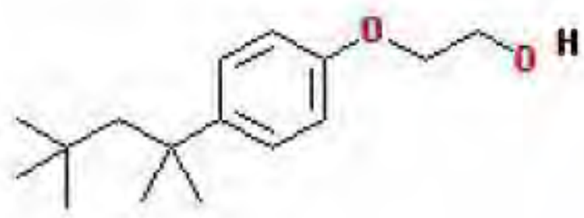
Application: Commonly used for suspending nucleic acid samples.

Appearance	**Clear colorless liquid**	DNase activity	**Not detected**
Conductivity (at bottling)	**0.7-1.0mS/cm**	RNase activity	**Not detected**
Density (25/4°C)	**0.990-1.010gr/ml**	Protease activity	**Not detected**
pH	**7.9-8.1**		

Triton® X-100

Synonym: *4-(1,1,3,3-Tetramethylbutyl)phenyl-polyethylene glycol, t-Octylphenoxypolyethoxyethanol, Polyethylene glycol tert-octylphenyl ether, Octoxynol 9.*

CAS [9002-93-1]; $(C_2H_4O)nC_{14}H_{22}O$; D 1.06; m.p. 6 °C



Warning; H:302-319-411; P:273-280-301+312-305+351+338-337+313

Cat. No. 201805

Triton® X-100

AR

Appearance	**Clear viscous liquid**	pH (5% in water)	**6-8**
Density (20/4°C)	**1.064-1.067gr/ml**	Water (KF)	**max. 0.2%w/w**
Assay (HPLC)	**min. 99.5%**	Identity (IR)	**Conforms to standard**
Iron (Fe)	**max. 0.0005%**	Cloud Point (1% in water)	**63-69°C**
Heavy metals (as Pb)	**max. 0.0005%**		

Cat. No. 201823

Triton® X-100

Molecular biology

Application: Non-ionic surfactant for the recovery of membrane components under non-denaturing conditions, also is used for isoelectric- focusing (IEF) and two-dimensional electrophoresis

Appearance	**Clear viscous liquid**	Water (KF)	**max. 0.2%w/w**
Assay (HPLC)	**min. 98%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	RNase activity	**Not detected**
Peroxides (as H_2O_2)	**max. 0.01%**	Protease activity	**Not detected**
pH (5% in water)	**6-8**		

TS Buffer 10X

Synonym: *Tris-SDS Buffer*

Composition: *Tris/Tris-HCl 0.25M, Sodium Chloride 1.37M , Potassium Chloride 0.027M.*

Cat. No. 208823

TS Buffer 10X

Molecular biology

Appearance	**Clear colorless liquid**	RNase activity	**Not detected**
pH of 10X Conc. (25°C)	**7.2-7.6**	Protease activity	**Not detected**
DNase activity	**Not detected**		

TSTU

Synonym: *N,N,N',N'-Tetramethyl-O-(N-succinimidyl)uronium tetrafluoroborate*

CAS [105832-38-0]; $C_9H_{16}BF_4N_3O_3$; M 301.05; m.p. 195 - 200 °C

Warning; H:315-319-335; P:261-280-305+351+338-321

Cat. No. 209933

TSTU

Peptide synthesis

Appearance	**White to off white powder**	Loss on drying (105°C)	**max. 0.5%**
Solubility (10% in ACN)	**Clear solution**	Melting point	**195-200°C**
Assay (HPLC)	**min. 98%**		

TTBS Buffer 10X

Synonym: *Tris-Tween-Buffer-Saline*
Composition: *Tris/Tris-HCl 0.2M, Tween 9mM, Sodium Chloride 1.5M.*

D 1.067;

Cat. No. 208923

TTBS Buffer 10X

Molecular biology

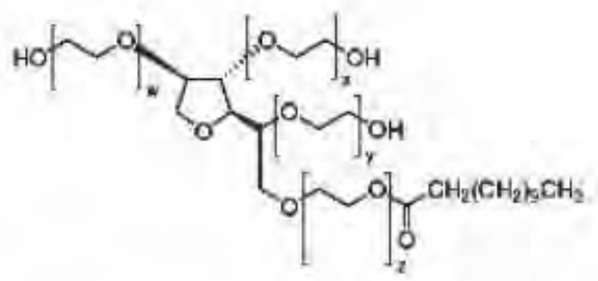
Appearance	**Clear colorless liquid**	RNase activity	**Not detected**
Composition	**Complies**	Protease activity	**Not detected**
pH of 10X Conc. (25°C)	**7.3-7.7**		
DNase activity	**Not detected**		

Filtered through 0.2µm, aseptically filled.

TWEEN® 20

Synonym: *Polyethylene glycol sorbitan monolaurate, Polyoxyethylenesorbitan monolaurate*

CAS [9005-64-5]; $C_{58}H_{114}O_{26}$; M 1227.72; D 1.11



Cat. No. 204523

TWEEN® 20

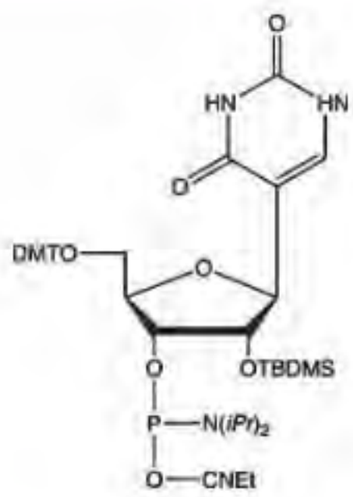
Molecular biology

Application: Non-ionic surfactant used in "blocking" solutions, solubilization of membrane proteins and electrophoresis. It is effectively suppresses unspecific reactions between antibodies, antigens and other molecules.

Appearance	**Pale yellow viscous liquid**	Acid value	**max. 2.0mgKOH/gr**
Density (20/4°C)	**1.09-1.12gr/ml**	pH (5% in water)	**5.0-7.0**
Heavy metals (as Pb)	**max. 0.001%**	Residue after ignition	**max. 0.25%**
Water (KF)	**max. 3%w/w**	DNase activity	**Not detected**
Hydroxyl value	**96-108mgKOH/gr**	RNase activity	**Not detected**
Saponification value	**40-50mgKOH/gr**	Protease activity	**Not detected**

U-OTBDMS-CE Phosphoramidite

$C_{45}H_{51}N_4O_8PSi$; M 861.06;



Cat. No. 182424

U-OTBDMS-CE Phosphoramidite

DNA synthesis

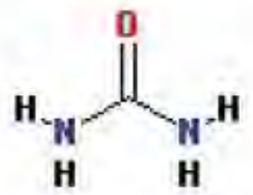
Appearance	**White to off white powder**
Assay (HPLC)	**min. 98%**
Water	**max. 0.4%**
Solubility (0.1M in ACN)	**Complete, clear**

See also DNA & RNA synthesis section, p. 363-418

Urea

Synonym: *Carbamide, Carbonyldiamide*

CAS [57-13-6]; EC 200-315-5; CH_4N_2O; M 60.06



Cat. No. 211805 ***Urea AR***

Appearance	**White solid**	Chloride (Cl)	**max. 0.0005%**
Assay	**99.0-100.5%**	Heavy metals (as Pb)	**max. 0.001%**
Melting point	**132-135°C**	Iron (Fe)	**max. 0.001%**
Water insolubles	**max. 0.01%**	Sulfate (SO_4)	**max. 0.001%**
Residue after ignition	**max. 0.01%**		

Cat. No. 211803 ***Urea Meets EP/BP spec.***

Appearance	**White or almost white solid**	Ammonium (NH4)	**max. 0.05%**
		Heavy metals (as Pb)	**max. 0.001%**
Assay	**98.5-101.5%**	Sulphated ash	**max. 0.1%**
Identity (IR)	**Conforms to standard**	Loss on drying (105°C)	**max. 1.0%**
Melting point	**132-135°C**	Appearance of solution	**Solution S is clear & colorless**
Alkalinity	**Passes EP/BP test**		
Biuret	**max. 0.1%**		

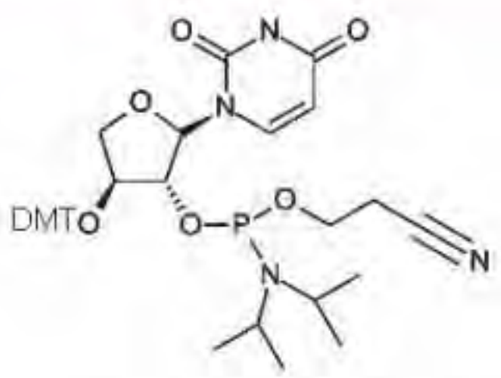
Cat. No. 211823 ***Urea Molecular biology***

Application: Commonly used as a denaturing agent for DNA and proteins.

Appearance	**White solid**	A260nm (8M)	**max. 0.05AU**
Assay	**99.5-100.5%**	A280nm (8M)	**max. 0.05AU**
Chloride (Cl)	**max. 0.0005%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.001%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	Protease activity	**Not detected**

U-TNA Phosphoramidite

$C_{38}H_{48}N_4O_8P$; M 716.8;

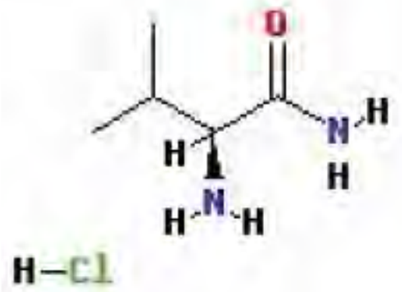


Cat. No. 459724 ***U-TNA Phosphoramidite DNA synthesis***

Appearance	**White to off-white solid**	NMR P^{31} spectrum	**Complies with structure**
Assay (HPLC)	**min. 95%**	Solubility (0.1M in ACN)	**Complete, clear**
NMR H^1 spectrum	**Complies with structure**		

H-Val-NH_2 Hydrochloride

CAS [3014-80-0]; $C_5H_{12}N_2O?HCl$; M 152.62;



Cat. No. 309133

H-Val-NH_2 Hydrochloride

Peptide synthesis

Appearance	**White to off-white solid**
Identity (H^1NMR)	**Conforms to standard**
Assay (T, argen.)	**98-102%w/w**

Water

CAS [7732-18-5]; EC 231-791-2; H_2O; M 18.01

D 1.00; m.p. 0 °C; b.p. 100 °C;

Cat. No. 232150

Water

ICP/OES/Ion Chromatography

Appearance	**Clear colorless liquid**	Ge (Germanium)	**max. 10ppb**
Acidity (as Acetic acid)	**max. 0.0002%**	K (Potassium)	**max. 10ppb**
Alkalinity (as Ammonia)	**max. 0.0002%**	Li (Lithium)	**max. 10ppb**
Resistivity (at manuf.)	**18.2-18.5Mohm*cm**	Mg (Magnesium)	**max. 20ppb**
Chloride (Cl)	**max. 0.05ppm**	Mn (Manganese)	**max. 10ppb**
Nitrate (NO_3)	**max. 0.05ppm**	Mo (Molybdenum)	**max. 10ppb**
Phosphate (PO_4)	**max. 0.05ppm**	Na (Sodium)	**max. 10ppb**
Sulfate (SO_4)	**max. 0.05ppm**	Nb (Niobium)	**max. 20ppb**
TOC	**max. 50ppb**	Ni (Nickel)	**max. 10ppb**
Trace elements analysis	**Complies**	Pb (lead)	**max. 20ppb**
Ag (Silver)	**max. 10ppb**	Sb (Antimony)	**max. 10ppb**
Al (Aluminum)	**max. 20ppb**	Si (Silicon)	**max. 30ppb**
As (Arsenic)	**max. 5ppb**	Sn (Tin)	**max. 20ppb**
Au (Gold)	**max. 20ppb**	Sr (Strontium)	**max. 10ppb**
B (Boron)	**max. 10ppb**	Ta (Tantalum)	**max. 20ppb**
Ba (Barium)	**max. 20ppb**	Ti (Titanium)	**max. 10ppb**
Be (Beryllium)	**max. 10ppb**	Tl (Thallium)	**max. 10ppb**
Bi (Bismuth)	**max. 20ppb**	V (Vanadium)	**max. 10ppb**
Ca (Calcium)	**max. 25ppb**	Zn (Zinc)	**max. 20ppb**
Cd (Cadmium)	**max. 10ppb**	Zr (Zirconium)	**max. 10ppb**
Co (Cobalt)	**max. 10ppb**	Grad. elution H.Peak at 210nm	**max. 0.005AU**
Cr (Chromium)	**max. 10ppb**	Grad. elution H.Peak at 254nm	**max. 0.001AU**
Cu (Copper)	**max. 10ppb**	Subs. reducing $KMnO_4$	**Passes test**
Fe (Iron)	**max. 20ppb**	Residue after evaporation	**max. 0.0002%w/w**
Ga (Gallium)	**max. 10ppb**		

Cat. No. 232141

Water

ULC/MS - CC/SFC

Appearance	**Clear colorless liquid**	Bi (Bismuth)	**max. 20ppb**
Color (APHA)	**max. 5**	Ca (Calcium)	**max. 50ppb**
Resistivity (at manuf.)	**18.2-30Mohm*cm**	Cd (Cadmium)	**max. 30ppb**
Residue after evaporation	**max. 0.0001%w/w**	Co (Cobalt)	**max. 20ppb**
Acidity (as Acetic acid)	**max. 0.0002%**	Cr (Chromium)	**max. 20ppb**
Alkalinity (as Ammonia)	**max. 0.00005%**	Fe (Iron)	**max. 30ppb**
TOC	**max. 10ppb**	K (Potassium)	**max. 50ppb**
MS-ESI+ (as Reserpine)	**max. 20ppb**	Li (Lithium)	**max. 30ppb**
H.Peak by PDAD 210-400nm	**max. 0.001AU**	Mg (Magnesium)	**max. 20ppb**
Grad. elution H.Peak at 210nm	**max. 0.001AU**	Mn (Manganese)	**max. 20ppb**
Grad. elution drift at 210nm	**max. 0.008AU**	Mo (Molybdenum)	**max. 50ppb**
Grad. elution H.Peak at 254nm	**max. 0.0005AU**	Na (Sodium)	**max. 50ppb**
Grad. elution drift at 254nm	**max. 0.005AU**	Ni (Nickel)	**max. 20ppb**
F254nm (as Quinine)	**max. 0.3ppb**	Pb (lead)	**max. 20ppb**
F365nm (as Quinine)	**max. 0.3ppb**	Sn (Tin)	**max. 50ppb**
Filter test	**Passes test**	Sr (Strontium)	**max. 30ppb**
Ag (Silver)	**max. 50ppb**	Zn (Zinc)	**max. 50ppb**
Al (Aluminum)	**max. 20ppb**		
Ba (Barium)	**max. 20ppb**		

Filtered through 0,1µm, filled under inert gas.

Cat. No. 232178

Water

LC-MS

Appearance	**Clear colorless liquid**	Cd (Cadmium)	**max. 0.05ppm**
Acidity (as Acetic acid)	**max. 0.0002%**	Co (Cobalt)	**max. 0.05ppm**
Alkalinity (as Ammonia)	**max. 0.0002%**	Cr (Chromium)	**max. 0.02ppm**
Resistivity (at manuf.)	**18-20Mohm*cm**	Cu (Copper)	**max. 0.02ppm**
Grad. elution H.Peak at 210nm	**max. 0.003AU**	Fe (Iron)	**max. 0.02ppm**
Grad. elution H.Peak at 254nm	**max. 0.001AU**	K (Potassium)	**max. 0.05ppm**
Residue after evaporation	**max. 0.0002%w/w**	Li (Lithium)	**max. 0.1ppm**
TOC	**max. 30ppb**	Mg (Magnesium)	**max. 0.05ppm**
Filter test	**Passes test**	Mn (Manganese)	**max. 0.02ppm**
LC-MS suitability test	**Complies**	Mo (Molybdenum)	**max. 0.05ppm**
Ag (Silver)	**max. 0.1ppm**	Na (Sodium)	**max. 0.05ppm**
Al (Aluminum)	**max. 0.05ppm**	Ni (Nickel)	**max. 0.02ppm**
Ba (Barium)	**max. 0.1ppm**	Pb (Lead)	**max. 0.02ppm**
Bi (Bismuth)	**max. 0.1ppm**	Sn (Tin)	**max. 0.05ppm**
Ca (Calcium)	**max. 0.05ppm**	Sr (Strontium)	**max. 0.05ppm**
		Zn (Zinc)	**max. 0.1ppm**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 232106

Water

HPLC

Appearance	**Clear colorless liquid**	Grad. elution H.Peak at 254nm	**max. 0.001AU**
Acidity (as Acetic acid)	**max. 0.0002%**	Residue after evaporation	**max. 0.0002%w/w**
Alkalinity (as Ammonia)	**max. 0.0002%**	TOC	**max. 50ppb**
Resistivity (at manuf.)	**18-18.5Mohm*cm**	Filter test	**Passes test**
Grad. elution H.Peak at 210nm	**max. 0.005AU**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 232126

Water

Pesti-S

Appearance	**Clear colorless liquid**	GC/NPD any Pesticide (as Parathion)	**max. 10ng/L**
Acidity (as Acetic acid)	**max. 0.0005%**	Residue after evaporation	**max. 0.0002%w/w**
GC/ECD any Pesticide (as Lindane)	**max. 5ng/L**	TOC	**max. 30ppb**

Filtered through 0.2µm, filled under inert gas.

Cat. No. 232110

Water

MOS

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 10ppb**
Acidity (as Acetic acid)	**max. 0.0002%**	Fe (Iron)	**max. 30ppb**
Alkalinity (as Ammonia)	**max. 0.0002%**	Li (Lithium)	**max. 30ppb**
Resistivity (at manuf.)	**18-18.5Mohm*cm**	Mg (Magnesium)	**max. 30ppb**
Heavy metals (as Pb)	**max. 0.0001%**	Mn (Manganese)	**max. 20ppb**
Residue after evaporation	**max. 0.0002%w/w**	Mo (Molybdenum)	**max. 30ppb**
Particle count > 1µm	**max. 10P/ml**	Ni (Nickel)	**max. 20ppb**
Ag (Silver)	**max. 20ppb**	Pb (lead)	**max. 30ppb**
Al (Aluminum)	**max. 20ppb**	Sb (Antimony)	**max. 30ppb**
As (Arsenic)	**max. 5ppb**	Si (Silicon)	**max. 50ppb**
B (Boron)	**max. 10ppb**	Sn (Tin)	**max. 30ppb**
Ba (Barium)	**max. 20ppb**	Sr (Strontium)	**max. 10ppb**
Be (Beryllium)	**max. 20ppb**	Ti (Titanium)	**max. 20ppb**
Cd (Cadmium)	**max. 20ppb**	V (Vanadium)	**max. 30ppb**
Co (Cobalt)	**max. 20ppb**	Zn (Zinc)	**max. 30ppb**
Cr (Chromium)	**max. 20ppb**		

Filtered through 0.2µm, filled under inert gas.

Cat. No. 232187

Water

Molecular biology sterile

Appearance	**Clear colorless liquid**	Sulfate (SO_4)	**max. 0.00005%**
Chloride (Cl)	**max. 0.00001%**	TOC	**max. 30ppb**
Resistivity (at manuf.)	**18-18.5Mohm*cm**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.00001%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.000001%**	Protease activity	**Not detected**
Residue after evaporation	**max. 0.0001%w/w**		
Subs. reducing $KMnO_4$	**Passes test**		

Filtered through 0.2µm, aseptically filled.

Cat. No. 232103

Water

Meets EP/BP spec.

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 0.1ppm**
Ammonium (NH4)	**max. 0.00002%**	Fe (Iron)	**max. 0.1ppm**
Acidity or Alkalinity	**Passes EP/BP test**	Ir (Iridium)	**max. 0.1ppm**
Calcium & Magnesium	**Passes EP/BP test**	Mn (Manganese)	**max. 0.1ppm**
Nitrate (NO_3)	**max. 0.00002%**	Mo (Molybdenum)	**max. 0.1ppm**
Sulfate (SO_4)	**Passes EP/BP test**	Ni (Nickel)	**max. 0.1ppm**
Chloride (Cl)	**Passes EP/BP test**	Os (Osmium)	**max. 0.1ppm**
Conductivity (at bottling)	**max. 4.3µS/cm**	Pd (Palladium)	**max. 0.1ppm**
Odor	**Odorless**	Pt (Platinum)	**max. 0.1ppm**
Heavy metals (as Pb)	**max. 0.00001%**	Rh (Rhodium)	**max. 0.1ppm**
Residue after evaporation	**max. 0.001%w/w**	Ru (Ruthenium)	**max. 0.1ppm**
TOC	**max. 500ppb**	V (Vanadium)	**max. 0.1ppm**
Oxidisable substances	**Passes EP/BP test**	Zn (Zinc)	**max. 0.1ppm**
Cr (Chromium)	**max. 0.1ppm**		

Cat. No. 232123

Water

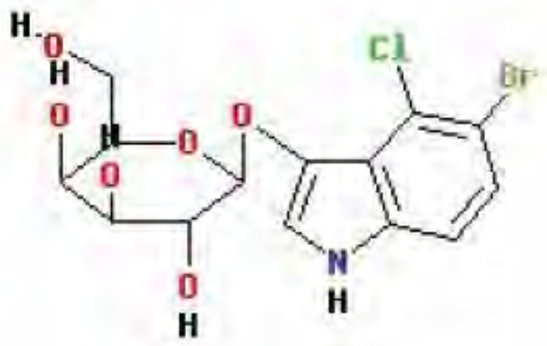
Molecular biology

Appearance	**Clear colorless liquid**	Iron (Fe)	**max. 0.00001%**
Resistivity (at manuf.)	**18-18.5Mohm*cm**	Sulfate (SO_4)	**max. 0.00005%**
Residue after evaporation	**max. 0.0002%w/w**	DNase activity	**Not detected**
Subs. reducing $KMnO_4$	**Passes test**	RNase activity	**Not detected**
TOC	**max. 30ppb**	Protease activity	**Not detected**
Chloride (Cl)	**max. 0.00001%**		
Heavy metals (as Pb)	**max. 0.000001%**		

Filtered through 0.2µm, aseptically filled.

X-Gal

Synonym: *5-Bromo-4-chloro-3-indolyl beta-D-galactoside*



CAS [7240-90-6]; EC 230-640-8; $C_{14}H_{15}BrClNO_6$; M 408.6

Warning; H:302-312-332; P:261-280-301+312-304+340-322

Cat. No. 071023

X-Gal

Molecular biology

Application: Commonly used as a chromogenic substrate for the enzyme β-Galactosidase used inthe detection of recombinant bacteriophage. Also used for immunoblotting and immunoblotting and immunocytochemical assays.

Appearance	**White to off-white powder**	Water (KF)	**max. 0.2%w/w**
Solubility (2% in DMF)	**Clear**	DNase activity	**Not detected**
Assay	**min. 99%**	RNase activity	**Not detected**
S.Rotation 20/D (C=1 in Water/DMF 1:1)	**-64--60°**	Protease activity	**Not detected**

Xylene

Synonym: *Xylene mixture of isomers*

CAS [1330-20-7]; EC 215-535-7; C_8H_{10}; M 106.17

D 0.865; m.p. -34 °C; b.p. 136-140 °C; UN 1307,3,III,F1

Warning; H:226-312-315-332; P:210-241-261-303+361+353

Cat. No. 242510

Xylene

MOS

Appearance	**Clear colorless liquid**	Cu (Copper)	**max. 10ppb**
Color (APHA)	**max. 10**	Fe (Iron)	**max. 30ppb**
Assay (Xylene isomers+EB)	**min. 99%**	Ga (Gallium)	**max. 50ppb**
Residue after evaporation	**max. 0.0005%w/w**	K (Potassium)	**max. 100ppb**
Water (KF)	**max. 0.02%w/w**	Li (Lithium)	**max. 30ppb**
Chloride (Cl)	**max. 3ppm**	Mg (Magnesium)	**max. 50ppb**
Ag (Silver)	**max. 3ppb**	Mn (Manganese)	**max. 20ppb**
Al (Aluminum)	**max. 50ppb**	Na (Sodium)	**max. 100ppb**
As (Arsenic)	**max. 10ppb**	Pb (lead)	**max. 50ppb**
B (Boron)	**max. 20ppb**	Si (Silicon)	**max. 150ppb**
Ba (Barium)	**max. 20ppb**	Sr (Strontium)	**max. 50ppb**
Ca (Calcium)	**max. 100ppb**	Ti (Titanium)	**max. 20ppb**
Cd (Cadmium)	**max. 20ppb**	V (Vanadium)	**max. 20ppb**
Co (Cobalt)	**max. 20ppb**	Zn (Zinc)	**max. 20ppb**
Cr (Chromium)	**max. 30ppb**	Particle count > 0.5µm	**max. 100P/ml**

Cat. No. 242505

Xylene

AR

Acidity (as HCl)	**max. 0.003%**	Residue after evaporation	**max. 0.001%w/w**
Color (APHA)	**max. 10**	Water (KF)	**max. 0.03%w/w**
Subs. darkened by Sulfuric Acid	**Passes ACS test**	Benzene	**max. 0.1%v/v**
Assay (Xylene isomers+EB)	**min. 99%**	Sulfur compounds (as S)	**max. 0.003%**

Cat. No. 242547

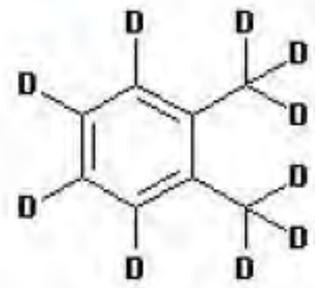
Xylene

Extra dry

Acidity (as HCl)	**max. 0.003%**	Assay (Xylene isomers+EB)	**min. 98%**
Color (APHA)	**max. 10**	Residue after evaporation	**max. 0.002%w/w**
Subs. darkened by Sulfuric Acid	**Passes test**	Water (KF)	**max. 0.003%w/w**

Dehydrated with less than 0,0050% of water

1,2-Xylene-d10, 99.5 atom%D



CAS [56004-61-6]; EC 259-942-8; C_8D_{10}; M 116.22

D 0.95; m.p. -25 °C; b.p. 142 °C; UN 1307,3,III,F1

Warning; H:226-312-315-332; P:210-241-261-303+361+353-501

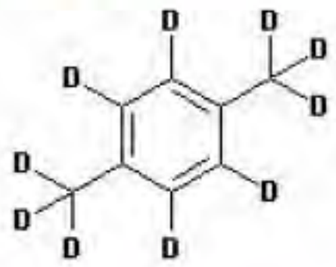
Cat. No. 319195

1,2-Xylene-d10, 99.5 atom%D

For NMR

Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.03% H_2O+D_2O**

1,4-Xylene-d10, 99.5 atom%D



CAS [41051-88-1]; EC 255-193-6; C_8D_{10}; M 116.22

D 0.95; m.p. 13 °C; b.p. 135 °C; UN 1307,3,III,F1

Warning; H:226-312-315-332; P:210-241-261-303+361+353-501

Cat. No. 319395

1,4-Xylene-d10, 99.5 atom%D

For NMR

Enrichment (NMR)	**min. 99.5Atom%D**
Water (KF)	**max. 0.03%H_2O+D_2O**

DNA & RNA Synthesis

Biosolve offers an extensive line of standard phosphoramidites, RNA phosphoramidites, specialty amidites and modifiers, solid supports CPG, reagents and solvents for a wide variety of instruments.
Customized products, such as special phosphoramidites, modifiers and linkers can be provided as well.

Each product, solvent or formulation is purified to meet the most stringent specifications. Minor impurities, known to affect the yield of DNA & RNA synthesis, are eliminated through chemical and physical treatments.

Certificates of Analysis detailing results of our Quality Control testing are delivered with each product.

Standard Phosphoramidites

RNA Phosphoramidites

Specialty Amidites and Modifiers

Synthesis Support

Solvents & Reagents

Table of contents

Standard Phosphoramidites

Quality Assurance & Specifications

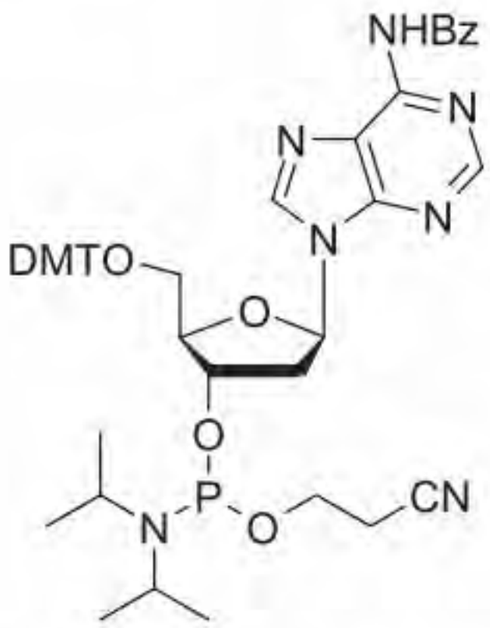
- HPLC – Identity is confirmed by comparison with a reference sample. Purity > 98%.
- NMR – Purity is determined by ^{31}P NMR and isomeric purity is verified by ^{1}H NMR.
- Coupling Test – Coupling efficiency > 99%.
- Solution Test – 0.1M solution clear and free of particulate contamination.
- Loss on drying – volatile components are determined to be < 2%.
- Water content – determined to be < 0.4%.
- Stability tests are performed over a period of 24 months.
- Certificate of analysis are available for every batch; even for long past delivered products.

Product	Catalog N° for ABI	Catalog N° for Expedite	Pack Size (g)
Bz-dA-CE Phosphoramidite	161024-F1	161024-E1	0.25
	161024-F2	161024-E2	0.5
	161024-F3	161024-E3	1
	161024-F4	161024-E4	2
	161024-F5	161024-E5	5
Bz-dC-CE Phosphoramidite	161124-F1	161124-E1	0.25
	161124-F2	161124-E2	0.5
	161124-F3	161124-E3	1
	161124-F4	161124-E4	2
	161124-F5	161124-E5	5
Ac-dC-CE Phosphoramidite	153024-F1	153024-E1	0.25
	153024-F2	153024-E2	0.5
	153024-F3	153024-E3	1
	153024-F4	153024-E4	2
	153024-F5	153024-E5	5
iBu-dG-CE Phosphoramidite	161224-F1	161224-E1	0.25
	161224-F2	161224-E2	0.5
	161224-F3	161224-E3	1
	161224-F4	161224-E4	2
	161224-F5	161224-E5	5
dmf-dG-CE Phosphoramidite	152924-F1	152924-E1	0.25
	152924-F2	152924-E2	0.5
	152924-F3	152924-E3	1
	152924-F4	152924-E4	2
	152924-F5	152924-E5	5
dT-CE Phosphoramidite	161324-F1	161324-E1	0.25
	161324-F2	161324-E2	0.5
	161324-F3	161324-E3	1
	161324-F4	161324-E4	2
	161324-F5	161324-E5	5

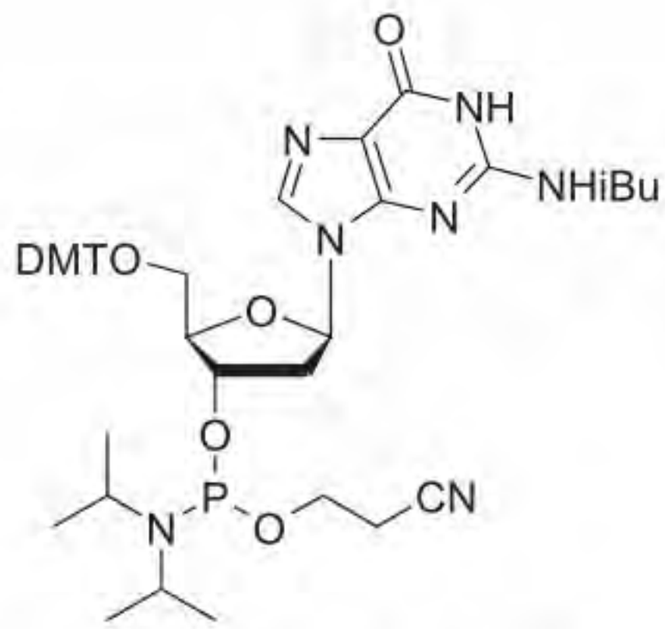
For further packages, please inquire

Abbreviations

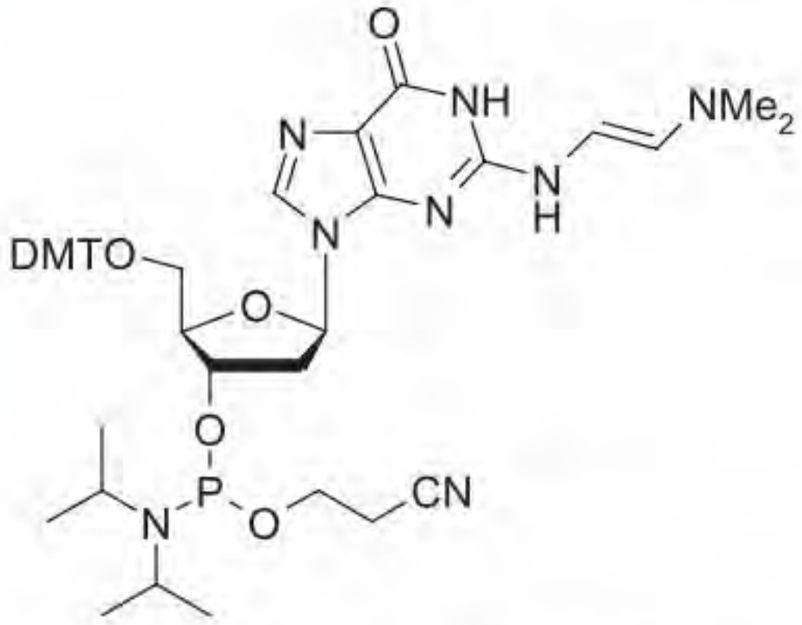
Ac	Acetyl
Bz	Benzoyl
CE	Cyanoethyl
CNEt	Cyanoethyl
dmf	Dimethylformamidine
DMT	4,4' Dimethoxytrityl
iBu	Isobutyryl
iPr	Isopropyl



Bz-dA-CE Phosphoramidite



iBu-dG-CE Phosphoramidite



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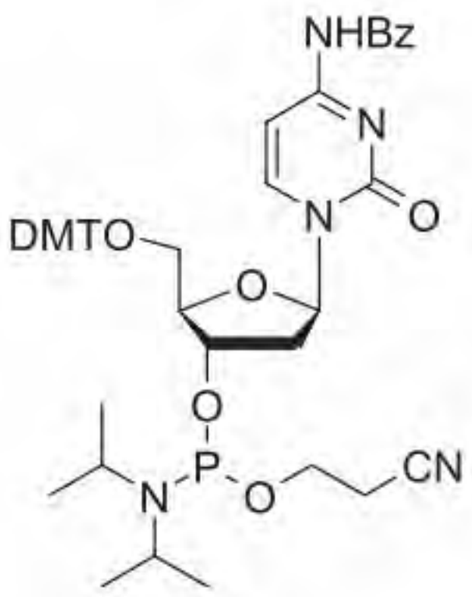

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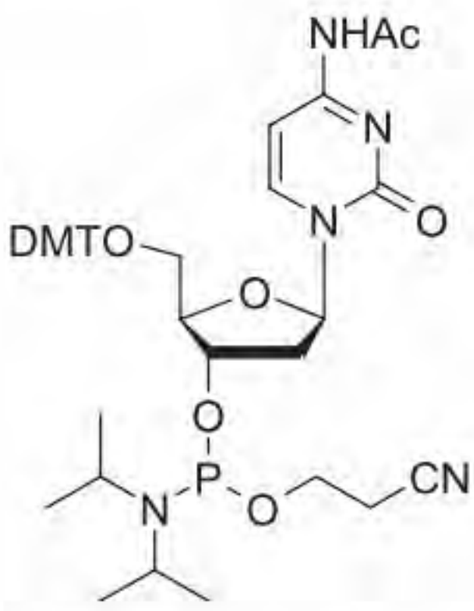

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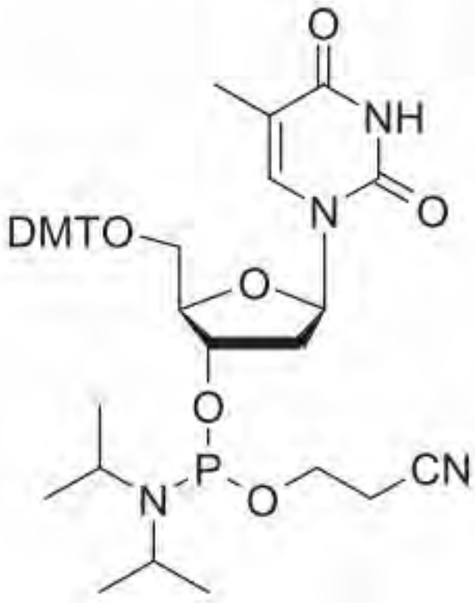


dT-CE Phosphoramidite

RNA Phosphoramidites

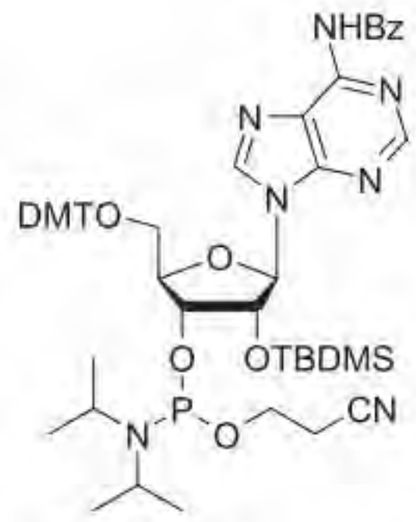
2'-OTBDMS Protected Amidites

Quality Assurance & Specifications

- HPLC – Identity is confirmed by comparison with a reference sample.
- NMR – Purity is determined by ^{31}P NMR and isomeric purity is verified by ^{1}H NMR.
- Coupling Test – Coupling efficiency > 98%.
- Solution Test – 0.1M solution clear and free of particulate contamination.
- Loss on drying – volatile components are determined to be < 2%.
- Water content – determined to be < 0.4%.
- Certificate of analysis are available for every batch; even for long past delivered products.

Product	Catalog N° for ABI	Catalog N° for Expedite	Pack Size (g)
N-Bz-A-OTBDMS-CE Phosphoramidite	182124-F1	182124-E1	0.25
	182124-F2	182124-E2	0.5
	182124-F3	182124-E3	1
N-Ac-C-OTBDMS-CE Phosphoramidite	182224-F1	182224-E1	0.25
	182224-F2	182224-E2	0.5
	182224-F3	182224-E3	1
N-iBu-G-OTBDMS-CE Phosphoramidite	182324-F1	182324-E1	0.25
	182324-F2	182324-E2	0.5
	182324-F3	182324-E3	1
U-OTBDMS-CE Phosphoramidite	182424-F1	182424-E1	0.25
	182424-F2	182424-E2	0.5
	182424-F3	182424-E3	1

For further packages, please inquire



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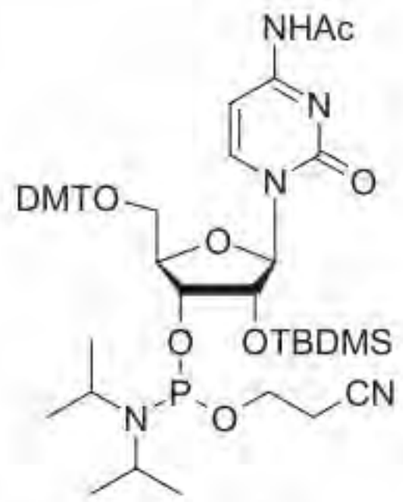
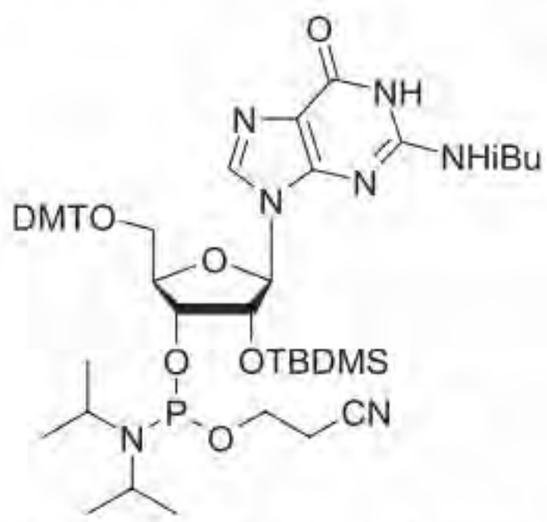
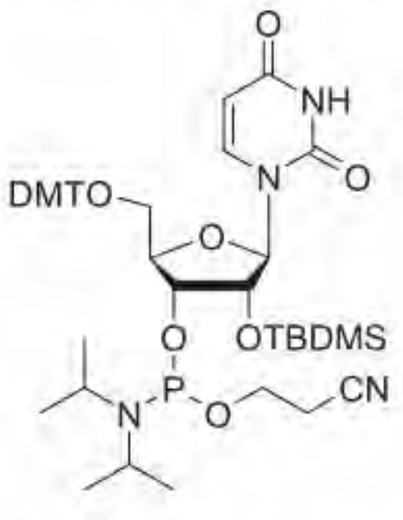


N-Ac-C-OTBDMS-CE Phosphoramidite



N-iBu-G-OTBDMS-CE Phosphoramidite



U-OTBDMS-CE Phosphoramidite

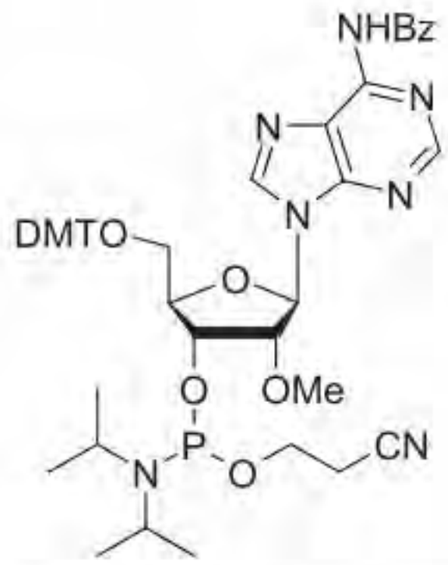
2'-OMe & 2'-F Protected amidites

Quality Assurance & Specifications

- HPLC – Identity is confirmed by comparison with a reference sample.
- NMR – Purity is determined by ^{31}P NMR and isomeric purity is verified by ^{1}H NMR.
- Coupling Test – Coupling efficiency > 98%.
- Solution Test – 0.1M solution clear and free of particulate contamination.
- Loss on drying – volatile components are determined to be < 2%.
- Water content – determined to be < 0.4%.
- Certificate of analysis are available for every batch; even for long past delivered products.

Product	Catalog N° for ABI	Catalog N° for Expedite	Pack Size (g)
2'-OMe-Bz-A-CE Phosphoramidite	179124-F1	179124-E1	0.25
	179124-F2	179124-E2	0.5
	179124-F3	179124-E3	1
2'-OMe-Ac-C-CE Phosphoramidite	179324-F1	179324-E1	0.25
	179324-F2	179324-E2	0.5
	179324-F3	179324-E3	1
2'-OMe-iBu-G-CE Phosphoramidite	179424-F1	179424-E1	0.25
	179424-2	179424-E2	0.5
	179424-F3	179424-E3	1
2'-OMe-U-CE Phosphoramidite	179524-F1	179524-E1	0.25
	179524-F2	179524-E2	0.5
	179524-F3	179524-E3	1

For further packages, please inquire



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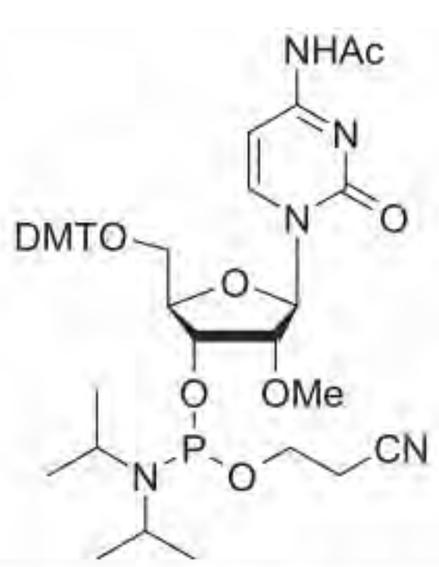

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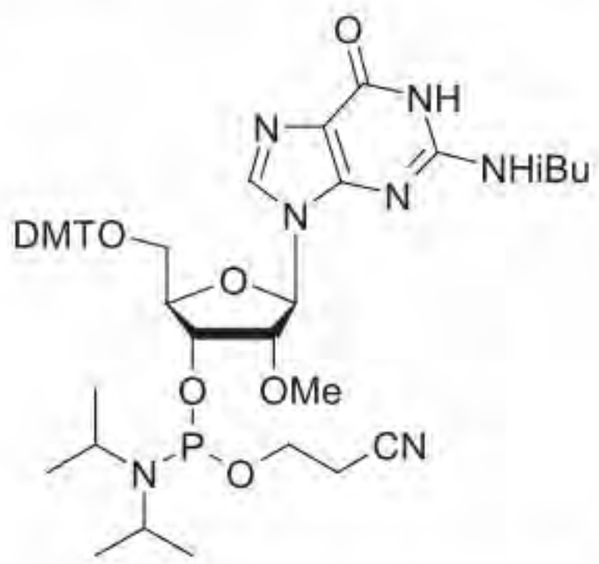

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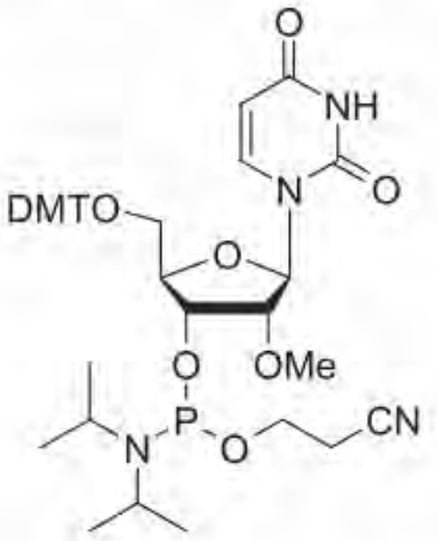
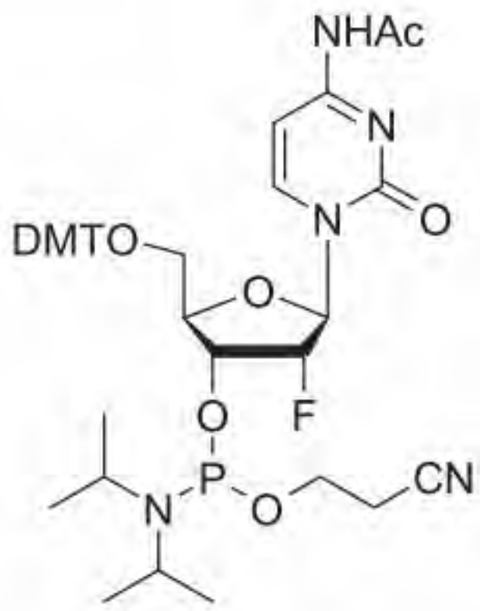


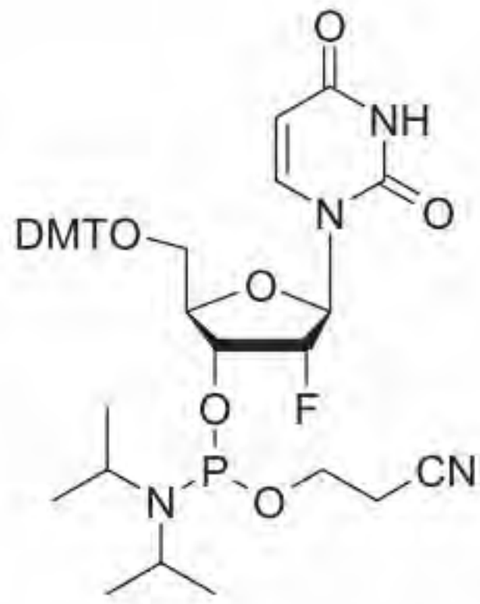
2'-OMe-U-CE Phosphoramidite

Product	Catalog N° for ABI	Catalog N° for Expedite	Pack Size (g)
2'-F-Ac-C-CE Phosphoramidite	179724-F1	179724-E1	0.25
	179724-F2	179724-E2	0.5
	179724-F3	179724-E3	1
2'-F-U-CE Phosphoramidite	179624-F1	179624-E1	0.25
	179624-F2	179624-E2	0.5
	179624-F3	179624-E3	1

For further packages, please inquire



2'-F-Ac-C-CE Phosphoramidite



2'-F-U-CE Phosphoramidite

Specialty Amidites & Modifiers

5'- Internal & 3'-Amino Modifiers

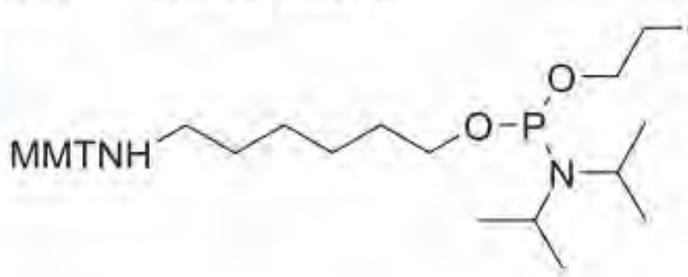
5'-Amino Modifiers are phosphoramidites which are used to produce a functional amine group on the 5'-terminus of oligonucleotides. The modifiers incorporate a C6 spacer with a primary amino group which can be used for subsequent conjugation to a vast majority of applications, such as dyes or labels.
The MMT protecting group can be removed on the DNA synthesizer by DCA treatment (usually 3% DCA/DCM). For cartridge purification, the final cleavage of the MMT group can be accomplished using a TFA solution (usually 2.5% TFA).

Product	Catalog N° for ABI	Catalog N° for Expedite	Pack Size
5'-Amino-Modifier C6	173424-F6	173424-E6	100 µmoles
	173424-F1	173424-E1	250 mg
5'-Amino-Modifier C6 TFA	173524-F6	173524-E6	100 µmoles
	173524-F1	173524-E1	250 mg
Amino-Modifier C6 dT	175624-F6	175624-E6	100 µmoles
	175624-F1	175624-E1	250 mg
3'-Amino-Modifier C3 CPG	181924-Z1	181924-Z1	0.1 gr
	181924-50	181924-50	1 gr
3'-PT-Amino Modifier C3 CPG	184024-Z1	184024-Z1	0.1 gr
	184024-50	184024-50	1 gr
3'-PT-Amino Modifier C6 CPG	184124-Z1	184124-Z1	0.1 gr
	184124-50	184124-50	1 gr
3'-Amino-Modifier C7 CPG 500	183424-Z1	183424-Z1	0.1 gr
	183424-50	183424-50	1 gr
3'-Amino-Modifier C7 CPG 1000	183524-Z1	183524-Z1	0.1 gr
	183524-50	183524-50	1 gr

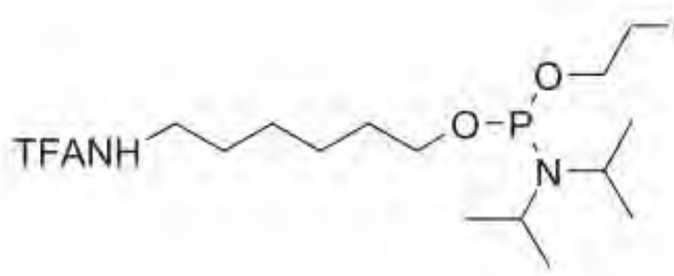
For further packages, please inquire.

Abbreviations

CNEt Cyanoethyl
DCA Dichloroacetic acid
DMT 4,4' Dimethoxytrityl
MMT 4-Monomethoxytrityl
TFA Trifluoroacetyl

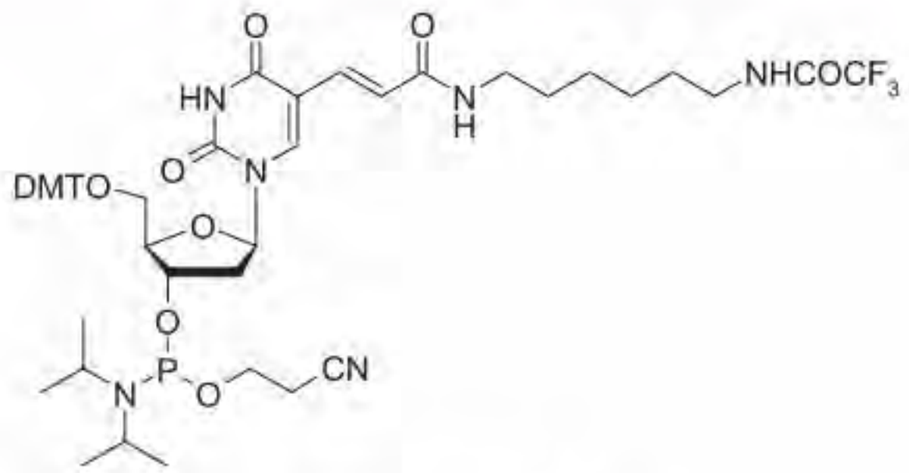


5'-Amino-Modifier C6

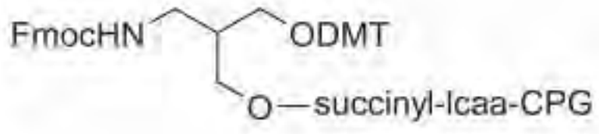


5'-Amino-Modifier C6 TFA

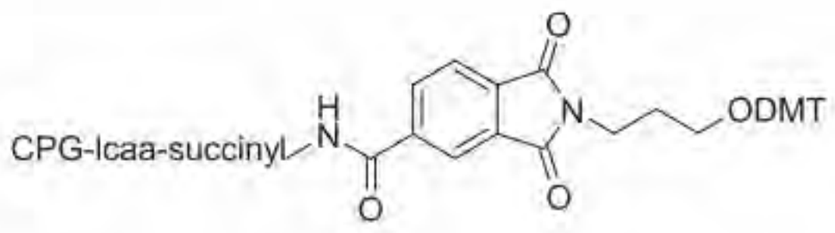
After addition of the Amino Modifier C6-dT product in place of dT residue, the primary amino group can be used for subsequent labelling such as dyes or enzymes.
The free primary amine obtained by normal deprotection with ammonia is attached via a linker suitable for further conjugation.



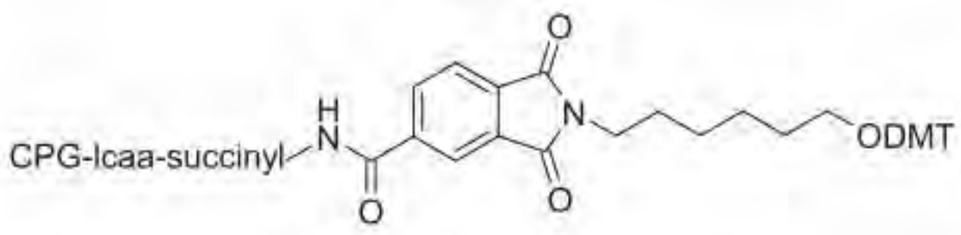
Amino modifier C6 dT



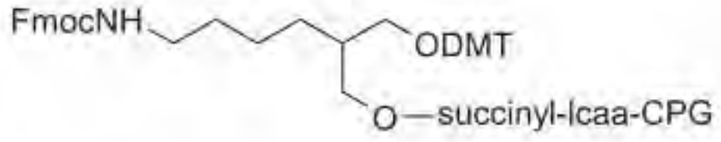
3'-Amino-Modifier C3 CPG



3'-PT-Amino-Modifier C3 CPG



3'-PT-Amino-Modifier C6 CPG



3'-Amino-Modifier C7 CPG

5'- & 3'- Thiol Modifiers

5'-Thiol Modifiers are phosphoramidites used to produce a functional thiol group on the 5'-terminus of oligonucleotides. Thiol modification allows attachment of a variety of products, such as fluorescent dyes, maleimide compounds, biotin and proteins.

The trityl group is used to protect the thiol and is not acid labile. The trityl protecting group which is lipophilic allows a trityl-on reversed-phase purification. A final deblocking of the oligonucleotide is accomplished by oxidation with silver nitrate and dithiothreitol (DTT).

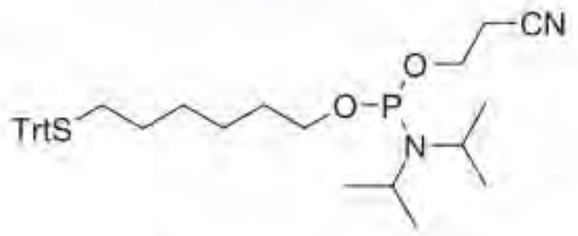
Product	Catalog N° for ABI	Catalog N° for Expedite	Pack Size
5'-Thiol-Modifier C6	175424-F6	175424-E6	100 µmoles
	175424-F1	175424-E1	250 mg
5'-Thiol-Modifier C6 S-S	175524-F6	175524-E6	100 µmoles
	175524-F1	175524-E1	250 mg
3'-Thiol-Modifier-C3-SS-CPG	183824-Z1	183824-Z1	0.1 gr
	183824-50	183824-Z1	1 gr

For further packages, please inquire

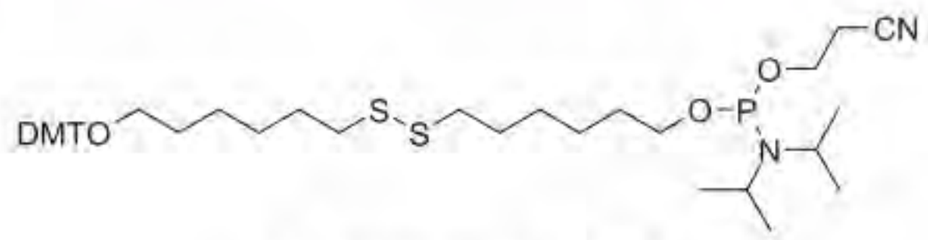
Abbreviations

DTT Dithiothreitol

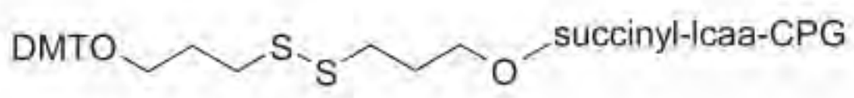
Trt Trityl



5'-Thiol-Modifier C6



5'-Thiol-Modifier C6 S-S



3'-Thiol-Modifier-C3-SS- CPG

5'- & 3'- Phosphorylating Modifiers

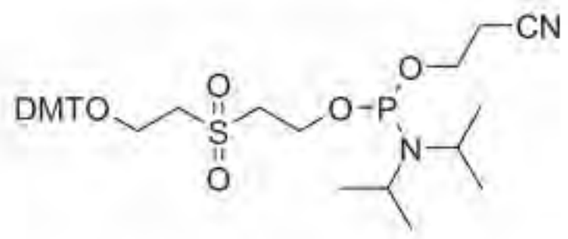
5'-Phosphorylating Modifiers are phosphoramidites used as an alternative to enzymatic techniques for 5'-phosphorylation of oligonucleotides. The DMT group allows determination of phosphorylation efficiency.

The DMT-2,2'-Sulfonyldiethanol group of the 5'-Phosphate Amidite is eliminated during the standard ammonium hydroxide treatment, rendering this compound incompatible with DMT-on reversed-phase purification.

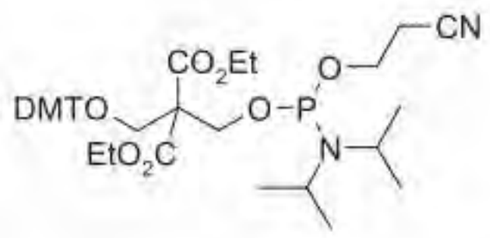
On the other side, the DMT of the 5'-Phosphorylating Reagent II is stable to the standard ammonium hydroxide deprotection allowing DMT-on reversed-phased purification. A final deblocking of the oligonucleotide can be accomplished with trifluoroacetic acid or with acetic acid / water treatment.

Product	Catalog N° for ABI	Catalog N° for Expedite	Pack Size
5'-Phosphate Amidite	173624-F6	173624-E6	100 µmoles
	173624-F1	173624-E1	250 mg
5'-Phosphorylating Reagent II	173724-F6	173724-E6	100 µmoles
	173724-F1	173724-E1	250 mg
3'-Phosphate-CPG	183724-Z1	183724-Z1	0.1 gr
	183724-50	183724-50	1 gr

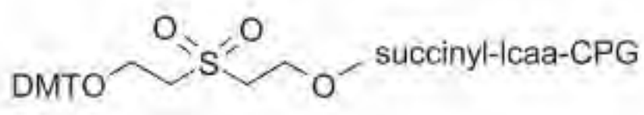
For further packages, please inquire



5'-Phosphate Amidite



5'-Phosphorylating Reagent II



3'-Phosphate CPG

5' & Internal –Biotin Labelling

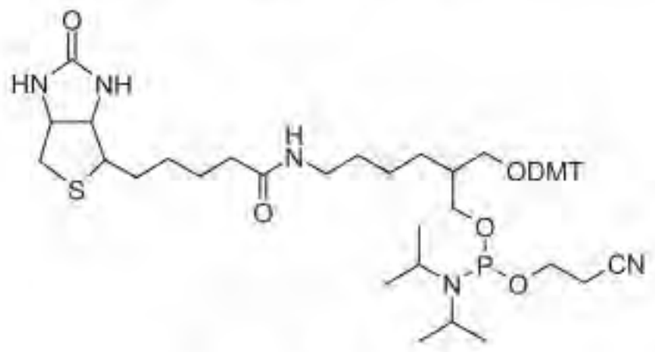
Biotin amidites are used in the 5' labeling of oligonucleotides. Biotin labeling can be captured by avidin or streptavidin.

The biotin phosphoramidite is a good alternative to the use of a biotin-NHS ester procedure. This compound allows multiple additions at the 5'-terminus of an oligonucleotide.

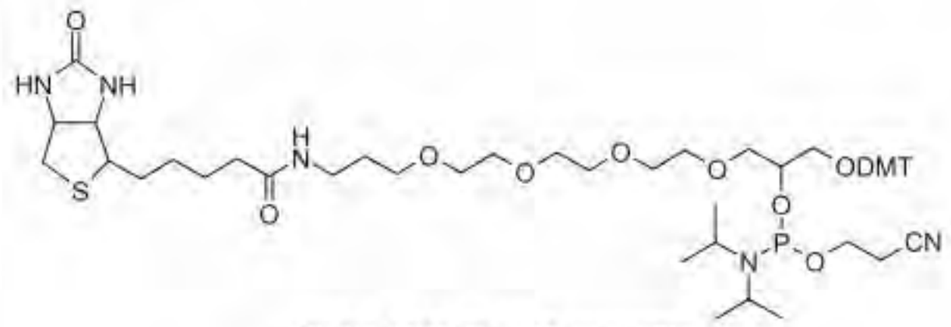
An improvement in the use of multiple labeling has been achieved through the Biotin-TEG phosphoramidite. The mixed polarity of the triethyleneglycol linker is very helpful for multiple additions as well as optimal capture by avidin and streptavidin.

Product	Catalog N° for ABI	Catalog N° for Expedite	Pack Size
Biotin-Phosphoramidite	175224-F7	175224-E7	50 µmoles
	175224-F6	175224-E6	100 µmoles
	175224-F1	175224-E1	250 mg
Biotin-TEG-Phosphoramidite	175324-F7	175324-E7	50 µmoles
	175324-F6	175324-E6	100 µmoles
	175324-F1	175324-E1	250 mg
5'-Biotin Phosphoramidite	174624-F7	174624-E7	50 µmoles
	174624-F6	174624-E6	100 µmoles
	174624-F1	174624-E1	250 mg
Biotin dT	182524-F7	182524-E7	50 µmoles
	182524-F6	182524-E6	100 µmoles
	182524-F1	182524-E1	250 mg
3'-Biotin-TEG-CPG	183924-Z1	183924-Z1	0.1 gr
	183924-50	183924-50	1 gr

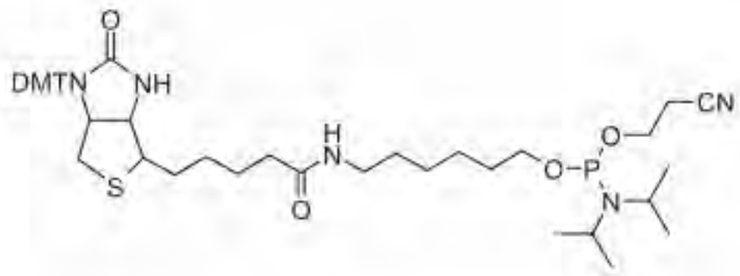
For further packages, please inquire



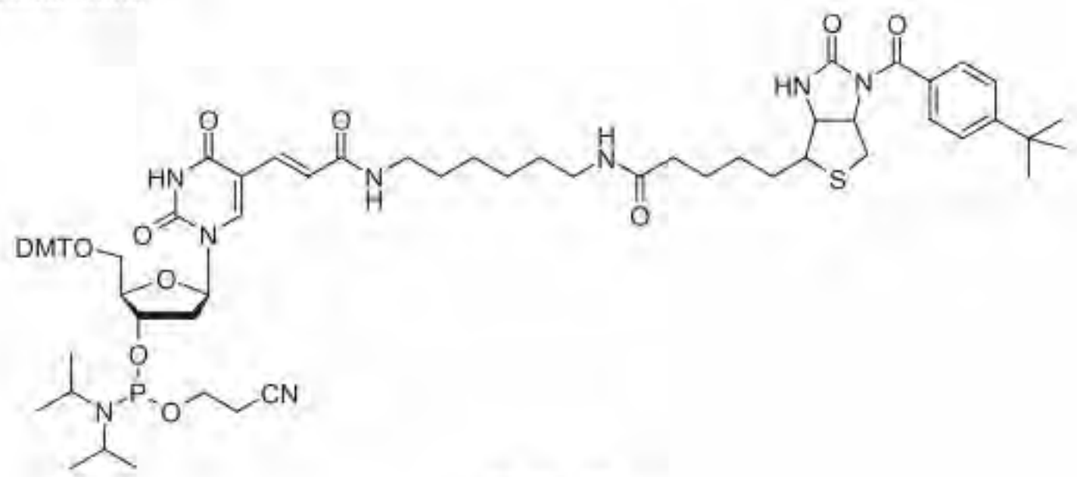
Biotin Phosphoramidite



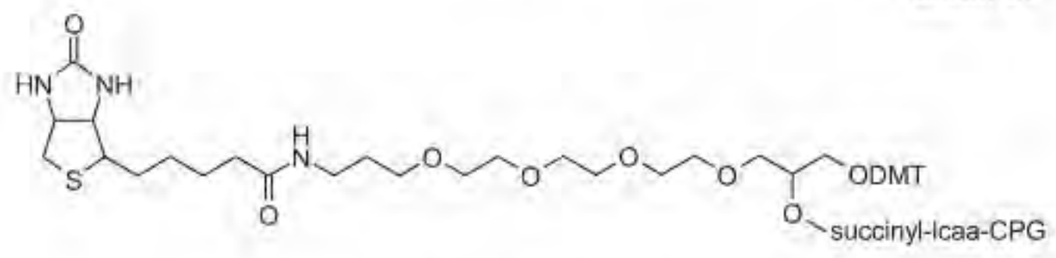
Biotin-TEG Phosphoramidite



5'-Biotin Phosphoramidite



Biotin dT



3'-Biotin-TEG-CPG

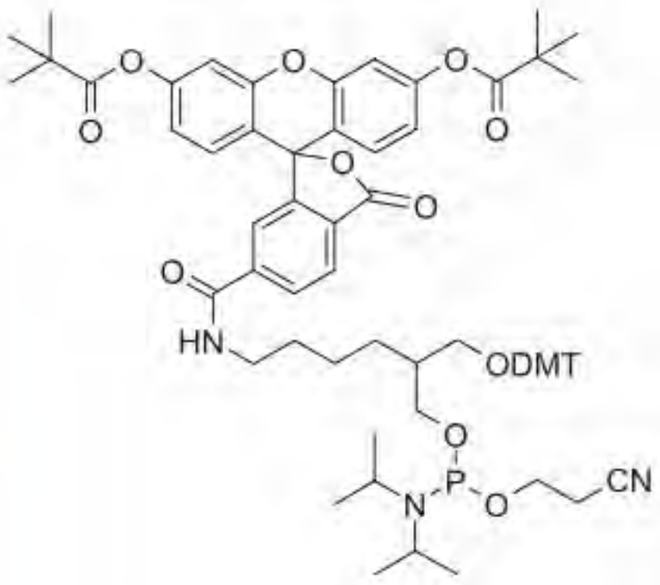
5'- Internal & 3'- Fluorescein Labelling

5'-Fluorescein Phosphoramidite is mostly used to label sequencing primers. The DMT group of the 6-Fluorescein phosphoramidite allows coupling quantification. A coupling of 15 minutes is recommended and we recommend to remove the DMT group before oligonucleotide purification. Due to the instability of the Fluorescein to light, we recommend to use the phosphoramidite immediately after the preparation of the solution.

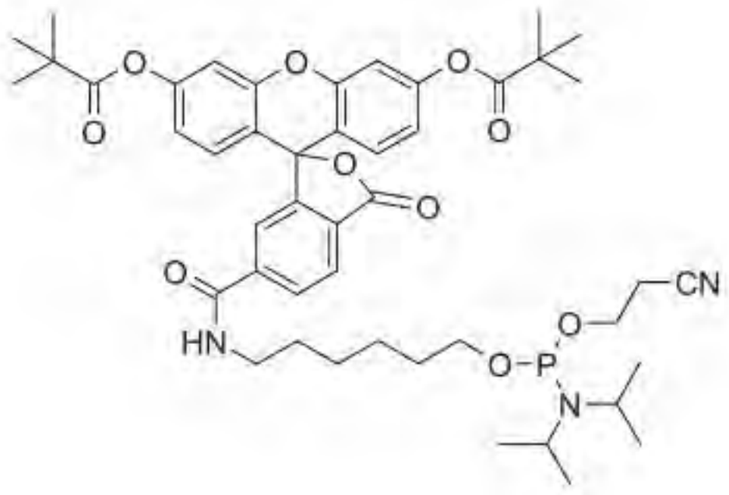
The 6-FAM Phosphoramidite has found applications in Genomic research, such as DNA sequencing and amplification. The product contains no DMT but is a single isomer of the 6-carboxyfluorescein with a 6 carbon linker. A coupling efficiency of more than 95% can be achieved resulting in a single fluorescein-oligonucleotide peak on reversed-phased purification. Use of methylamine should be avoided.

Product	Catalog N° for ABI	Catalog N° for Expedite	Pack Size
6-Fluorescein-Phosphoramidite	173824-F7	173824-E7	50 µmoles
	173824-F6	173824-E6	100 µmoles
	173824-F1	173824-E1	250 mg
5'-Fluorescein-Phosphoramidite (6-FAM)	173924-F7	173924-E7	50 µmoles
	173924-F6	173924-E6	100 µmoles
	173924-F1	173924-E1	250 mg
Fluorescein phosphoramidite	182824-F7	182824-E7	50 µmoles
	182824-F6	182824-E6	100 µmoles
	182824-F1	182824-E1	250 mg
Fluorescein dT	182624-F7	182624-E7	50 µmoles
	182624-F6	182624-E6	100 µmoles
	182624-F1	182624-E1	250 mg
3'-(6-FAM)-CPG	183324-Z1	183324-Z1	0.1 gr
	183324-50	183324-50	1 gr

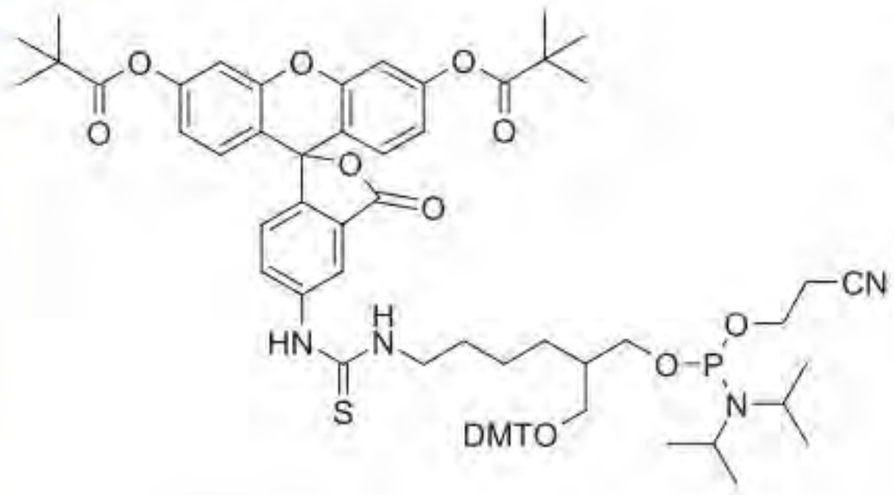
For further packages, please inquire



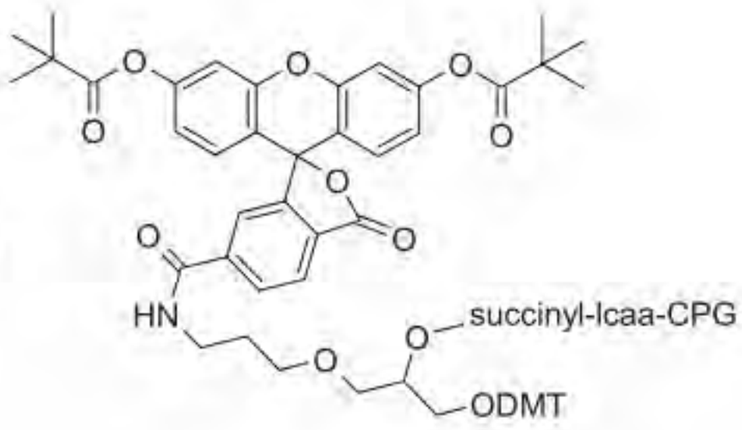
6-Fluorescein Phosphoramidite



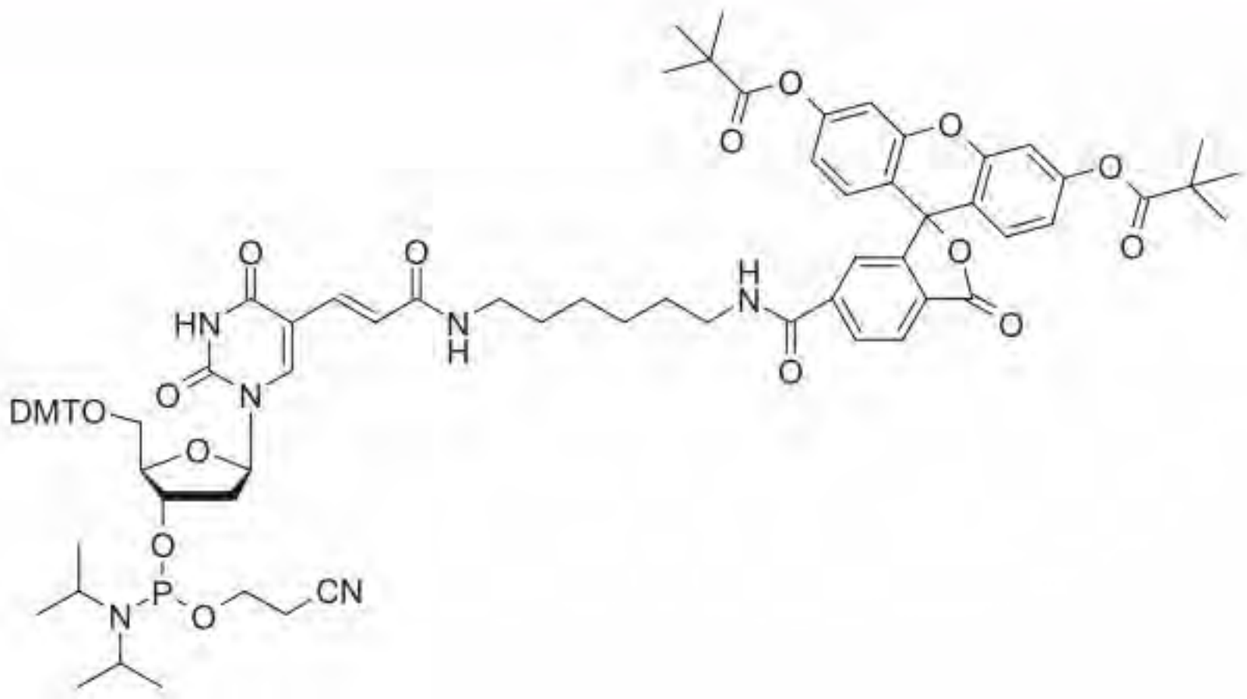
5'-Fluorescein Phosphoramidite (6-FAM)



Fluorescein Phosphoramidite



3'-(6-FAM)-CPG



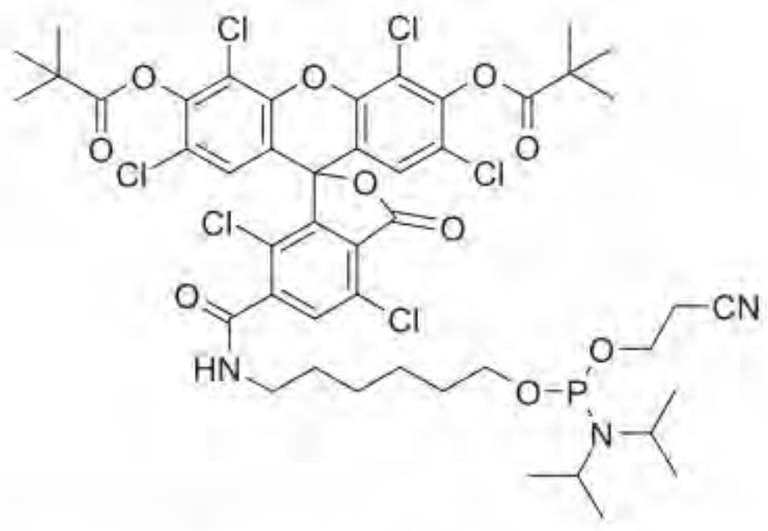
Fluorescein dT

TET & HEX Amidites

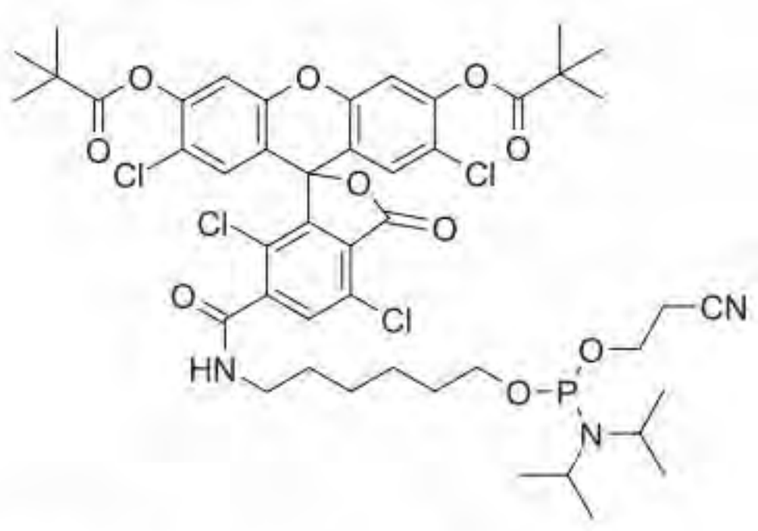
TET and HEX are derivatives which fluoresce in the Orange and the Pink region of the visible spectrum, respectively. As opposed, the Fluorescein itself fluoresces in the Green region of the visible spectrum. The use of these products is identical to the Fluorescein.

Product	Catalog N° for ABI	Catalog N° for Expedite	Pack Size
5'-Hexachloro-Fluorescein-Phosphoramidite (6-HEX)	175024-F7	175024-E7	50 µmoles
	175024-F6	175024-E6	100 µmoles
	175024-F1	175024-E1	250 mg
5'-Tetrachloro-Fluorescein-Phosphoramidite (6-TET)	175124-F7	175124-E7	50 µmoles
	175124-F6	175124-E6	100 µmoles
	175124-F1	175124-E1	250 mg

For further packages, please inquire



5'-Hexachloro-Fluorescein Phosphoramidite (6-HEX)

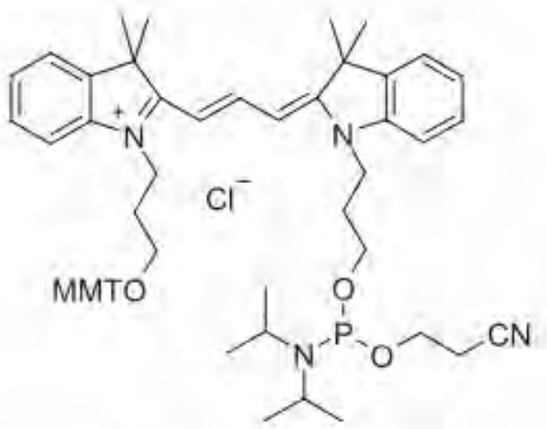


5'-Tetrachloro-Fluorescein Phosphoramidite (6-TET)

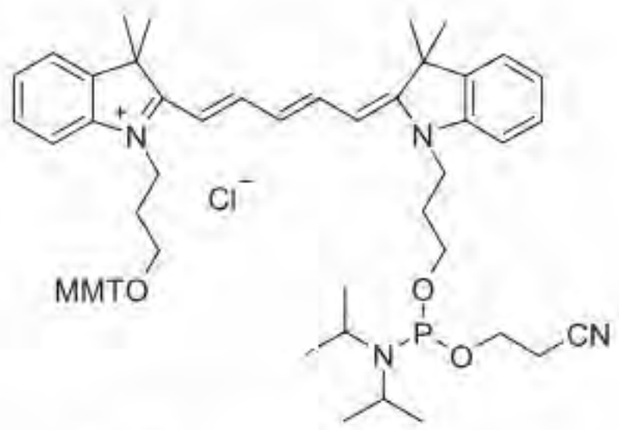
Cyanine Phosphoramidites

Cy3 and Cy5 available as phosphoramidites have been widely used in many detection and analysis methods. With a fluorescence in the yellow orange and red region of the visible spectrum, cyanines are probably the most important dyes for labelling of fluorescent probes.

Not available in all countries



Cy3 phosphoramidite



Cy5 phosphoramidite

Product	Catalog N° for ABI	Catalog N° for Expedite	Pack Size
Cy3 Phosphoramidite	140524-F7	140524-E7	50 µmoles
	140524-F6	140524-E6	100 µmoles
	140524-F1	140524-E1	250 mg
Cy5 Phosphoramidite	140624-F7	140624-E7	50 µmoles
	140624-F6	140624-E6	100 µmoles
	140624-F1	140624-E1	250 mg

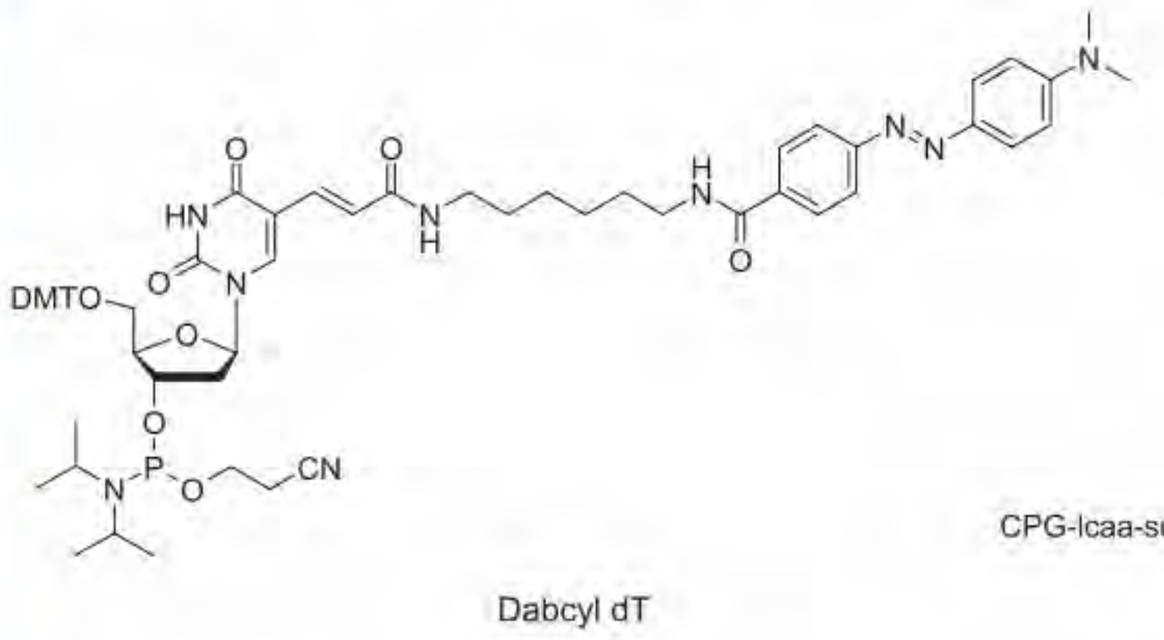
For further packages, please inquire

Dabcyl Internal & 3' Labelling

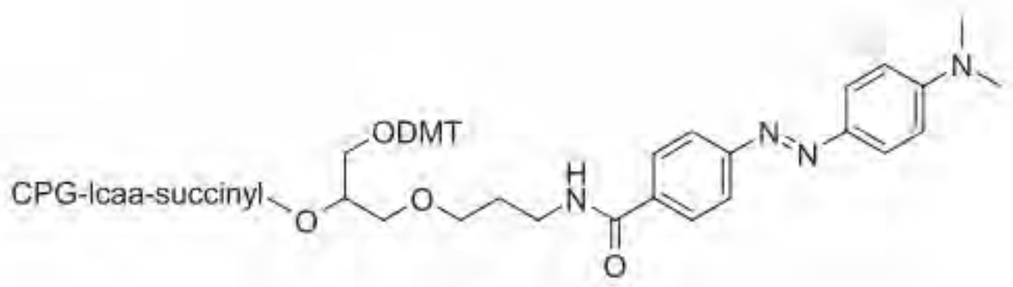
Dabcyl is a major quencher in preparation of diagnostic probes; Dabcyl dT and 3'Dabcyl-CPG will allow the use of this universal quencher at 5', 3' or internal position.

Product	Catalog N° for ABI	Catalog N° for Expedite	Pack Size
Dabcyl dT	182724-F7	182724-E7	50 µmoles
	182724-F6	182724-E6	100 µmoles
	182724-F1	182724-E1	250 mg
3'-Dabcyl-CPG	183224-Z1	183224-Z1	0.1 gr
	183224-50	183224-50	1 gr

For further Packages, please inquire



Dabcyl dT



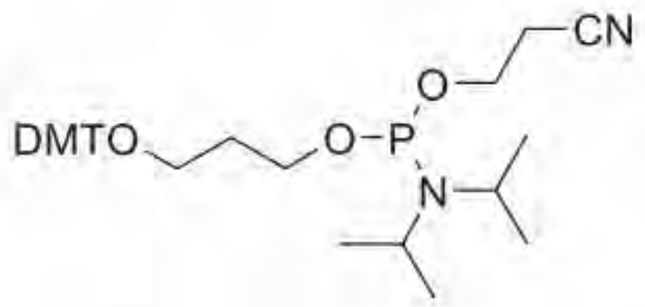
3'-Dabcyl-CPG

5'- & 3'- Spacer Modifiers

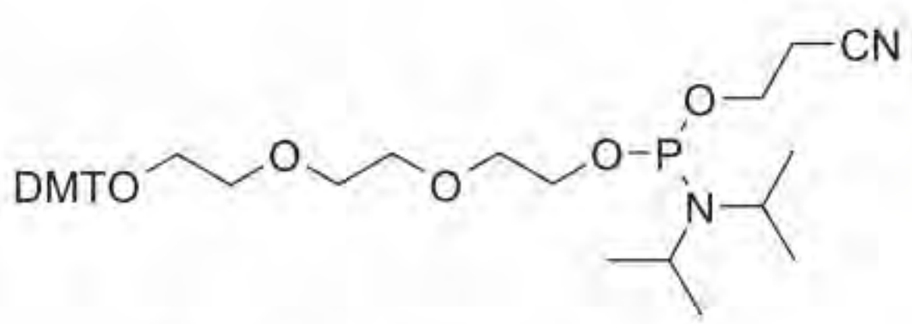
Spacer modifiers are designed for internal and 5'-modifications.
Spacer C-9 and spacer C-18 phosphoramidites are polyethyleneglycol-based that can be added sequentially when a longer arm is required.
dSpacer allows the introduction of an abasic site into oligonucleotides. Spacer C-3 has an aliphatic linker.

Product	Catalog N° for ABI	Catalog N° for Expedite	Pack Size
Spacer Phosphoramidite C3	243024-F7	243024-E7	50 µmoles
	243024-F6	243024-E6	100 µmoles
	243024-F1	243024-E1	250 mg
Spacer Phosphoramidite C9	242924-F7	242924-E7	50 µmoles
	242924-F6	242924-E6	100 µmoles
	242924-F1	242924-E1	250 mg
Spacer Phosphoramidite C18	242624-F7	242624-E7	50 µmoles
	242624-F6	242624-E6	100 µmoles
	242624-F1	242624-E1	250 mg
dSpacer	242724-F7	242724-E7	50 µmoles
	242724-F6	242724-E6	100 µmoles
	242724-F1	242724-E1	250 mg
3'-C3-spacer- CPG	183624-Z1	183624-Z1	0.1 gr
	183624-50	183624-50	1 gr

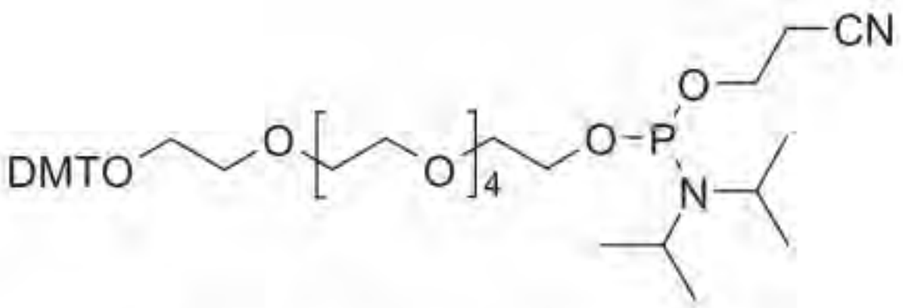
For further packages, please inquire



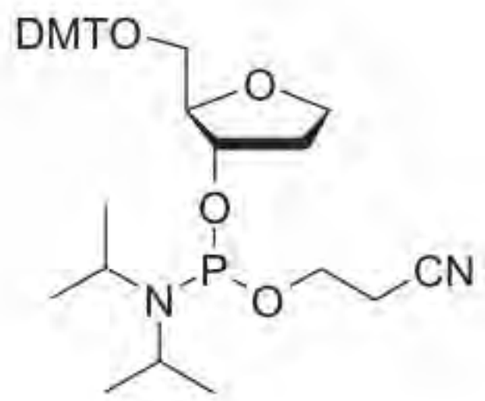
Spacer phosphoramidite C3



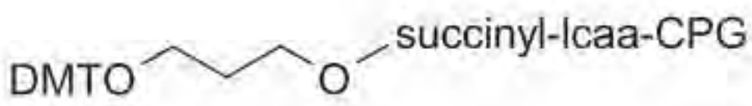
Spacer phosphoramidite C9



Spacer phosphoramidite C18



dSpacer

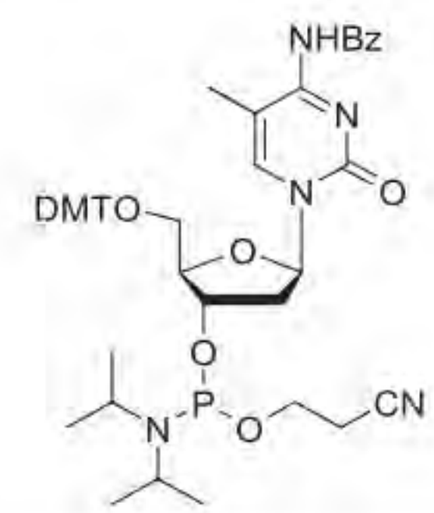


3'-C3-spacer CPG

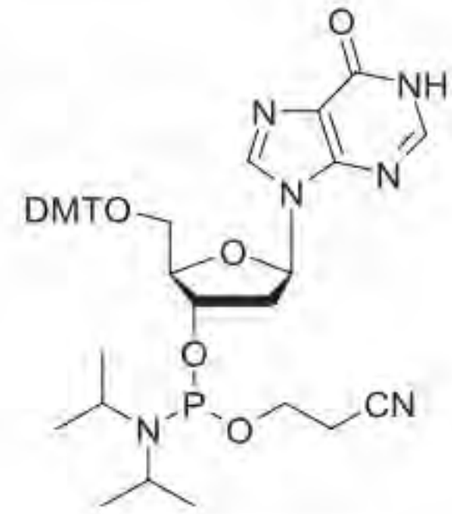
Duplex Modifiers

5-Me-dC is known to improve stacking and enhance binding; it stabilizes duplexes by increasing melting temperature of more than 1°C per addition.

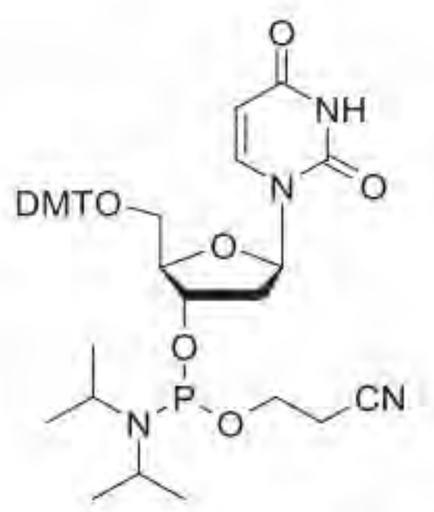
2-deoxyInosine and 2'-deoxyUridine amidites can be useful for primers designed in relation with degenerate sites.



5-Methyl-2'-deoxycytidine



2'-Deoxyinosine



2'-Deoxyuridine

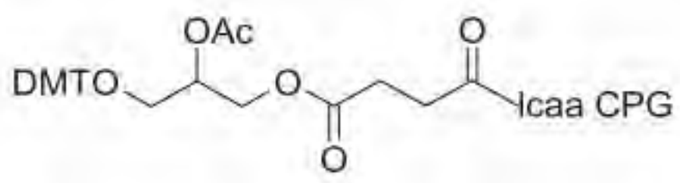
Product	Catalog N° for ABI	Catalog N° for Expedite	Pack Size
5-Methyl-2'-deoxyCytidine	170824-F6	170824-E6	100 µmoles
	170824-F1	170824-E1	250 mg
2'-deoxyInosine	054824-F6	054824-E6	100 µmoles
	054824-F1	054824-E1	250 mg
2'-deoxyUridine	055424-F6	055424-E6	100 µmoles
	055424-F1	055424-E1	250 mg

For further packages please inquire.

3'-Glyceryl-CPG

The 3'-Glyceryl-CPG is available with the standard Long Chain Alkyl Amine (LCAA) linker in both glass pore sizes, 500 and 1000 Angström. These supports are fully end-capped to ensure that CPG surface is inert in order to give clean and reproducible reaction profiles.

At the end of the oligonucleotide synthesis, the 3'-phosphoglyceryl terminus is oxidized by sodium periodate to form a 3'-phospho-glycaldehyde. The aldehyde may be further oxidized to the corresponding carboxylic acid. Either the aldehyde or the carboxylate may be used for subsequent conjugation to amine-containing products.



3'-Glyceryl CPG

Product	Catalog N°	Pack Size (g)
3'-Glyceryl-CPG-500A	055224-50	1
	055224-49	10
	055224-54	50
	055224-56	100
3'-Glyceryl-CPG-1000A	055324-50	1
	055324-49	10
	055324-54	50
	055324-56	100

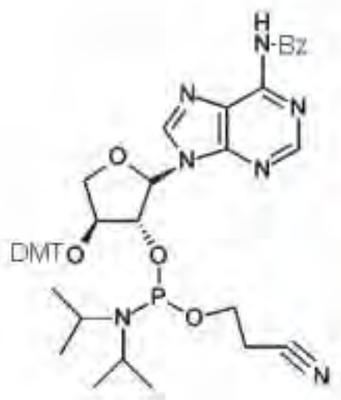
For further packages please inquire.

TNA Phosphoramidites

TNA's (Threose Nucleic Acid) are nucleotide analogs characterized by 4 membered sugar ring, were , published by Eschenmoser in 2002 (Kai-Uwe Schoning et al. Helvetica Chimica Acta, Vol. 85, 2002 pp.4111). We offer the 4 nucleotide analogs as phophoramidites, compatible with standard oligo synthesis. We Offer the inverted steric-configoration : D-TNA phosphoramidite as novel building blocks for DNA/RNA research

A-TNA Phosphoramidite

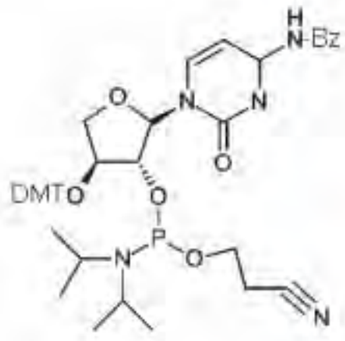
M 843.9



Cat. No:	A-TNA Phosphoramidite		
459024	DNA synthesis		
Appearance	White to off-white solid	NMR P31 spectrum	Complies with structure
Assay (HPLC)	min. 95%	Solubility (0.1M in ACN)	Complete, clear
NMR H1 spectrum	Complies with structure		

C-TNA Phosphoramidite

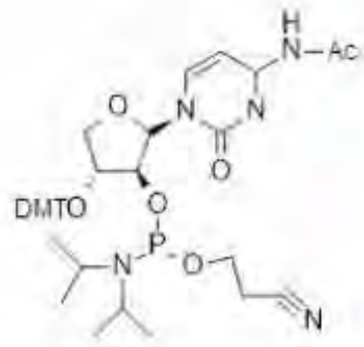
M 819



Cat. No:	C-TNA Phosphoramidite		
458924	DNA synthesis		
Appearance	White to off-white solid		
Assay (HPLC)	min. 95%	NMR P31 spectrum	Complies
NMR H1 spectrum	Complies	Solubility (0.1M in ACN)	Complete, clear

D-TNA-C Phosphoramidite

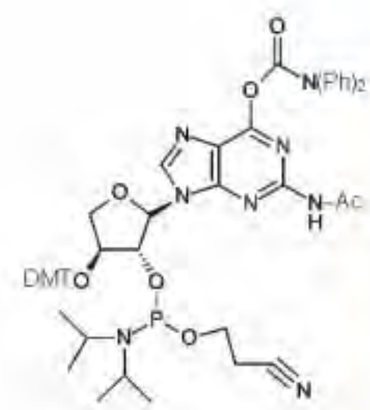
M 819



Cat. No:	D-TNA-C Phosphoramidite		
460224	DNA synthesis		
Appearance	White to off-white solid		
Assay (HPLC)	min. 95%	NMR P31 spectrum	Complies
NMR H1 spectrum	Complies	Solubility (0.1M in ACN)	Complete, clear

G-TNA Phosphoramidite

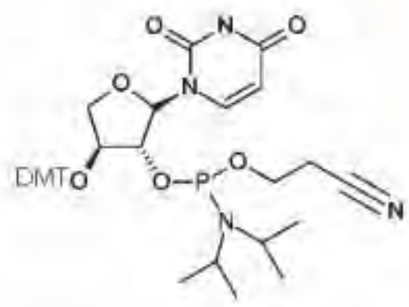
M 992.1



Cat. No:	G-TNA Phosphoramidite		
459824	DNA synthesis		
Appearance	White to off-white solid	NMR P31 spectrum	Complies with structure
Assay (HPLC)	min. 95%	Solubility (0.1M in ACN)	Complete, clear
NMR H1 spectrum	Complies with structure		

U-TNA Phosphoramidite

M 716



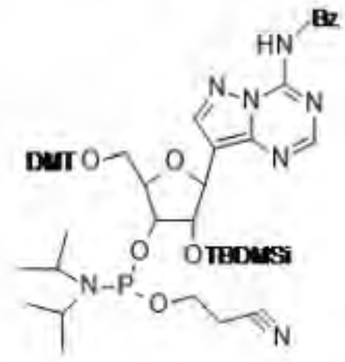
Cat. No:	U-TNA Phosphoramidite		
459724	DNA synthesis		
Appearance	White to off-white solid	NMR P31 spectrum	Complies with structure
Assay (HPLC)	min. 95%	Solubility (0.1M in ACN)	Complete, clear
NMR H1 spectrum	Complies with structure		

Pyrazolotriazine phosphoramidites

Pyrazolotriazine phosphoramidities are novel C-C nucluotides analogs, developed by Biosolve WO2013179289A1, WO2013179292A1.
Results of Pyrazolotriazine modified siRNA strands show an improved specificity without immune-stimulation.
We offer the 4 nucleotide analogues as phosphoramidites, compatible with standard oilgo synthesis.

Pyrazolotriazine Adenosine phosphoramidite

$C_{53}H_{60}N_7O_8PSi$; M 988.2;



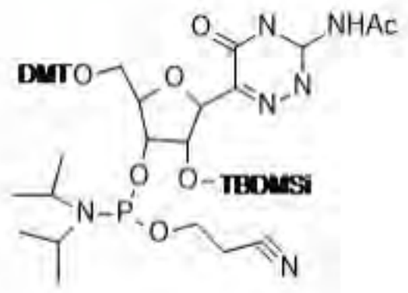
Cat. No. 461224 ***Pyrazolotriazine Adenosine phosphoramidite***

DNA synthesis

Appearance	**White to off white solid**	NMR P31 spectrum	**Conforms with structure**
Assay (HPLC)	**min. 90%**	Solubility (0.1M in ACN)	**Complete, clear**
NMR H1 spectrum	**Conforms with structure**		

Pyrazolotriazine-Cytidine phosphoramidite

$C_{46}H_{55}N_6O_9PSi$; M 905.1;



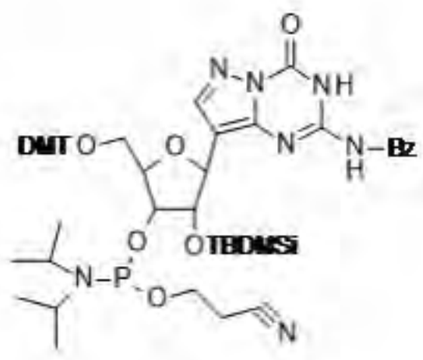
Cat. No. 463524 ***Pyrazolotriazine-Cytidine phosphoramidite***

DNA synthesis

Assay (HPLC)	**min. 90%**
NMR H1 spectrum	**Conforms with structure**
NMR P31 spectrum	**Conforms with structure**

Pyrazolotriazine-Guanosine phosphoramidite

$C_{53}H_{66}N_7O_9PSi$; M 1004.2;



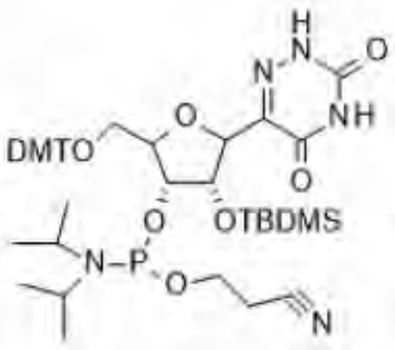
Cat. No. 463424 ***Pyrazolotriazine-Guanosine phosphoramidite***

DNA synthesis

Assay (HPLC)	**min. 90%**
NMR H1 spectrum	**Conforms with structure**
NMR P31 spectrum	**Conforms with structure**
Solubility (0.1M in ACN)	**Complete, clear**

Pyrazolotriazine-Uridine phosphoramidite

$C_{44}H_{50}N_5O_9PSi$; M 862.03;



Cat. No. 463624 ***Pyrazolotriazine-Uridine phosphoramidite***

DNA synthesis

Assay (HPLC)	**min. 90%**
NMR H1 spectrum	**Conforms with structure**
NMR P31 spectrum	**Conforms with structure**
Solubility (0.1M in ACN)	**Complete, clear**

Sphingolipids Spermine/Spermidine

Polycations sphingolipids as building blocks for coupling to DNA/RNA are novel molecules developed by Biosolve (WO2015015496A1). In vivo and In vitro experiments results with siRNA-polycationicsphingolipid conjugates demonstrate:

Activity without trasfection reagent,

Prolong circulation in plasma,

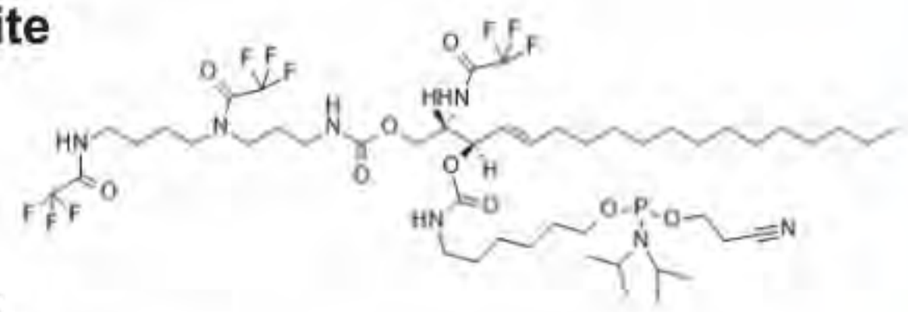
Accumulation in tumor tissues,

No immune-activation.

We offer these polycationic sphingolipids as phosphoramidites for direct coupling to 5'-position of oligonucleotide, or as NHS-active esters for post-synthesis protocols.

Sphingolipid-Spermidine phosphoramidite

$C_{65}H_{98}F_6N_7O_9P$; M 1264.46;



Cat. No. 459624

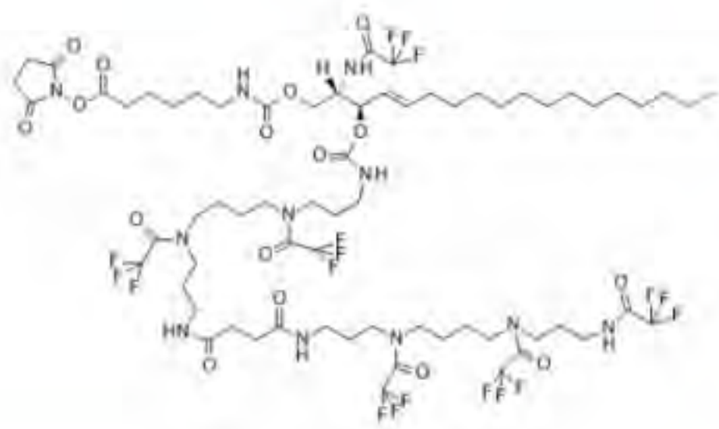
Sphingolipid-Spermidine phosphoramidite

DNA synthesis

Appearance	**Colorless to light yellow oil**	NMR P31 spectrum	**Conforms with structure**
		NMR H1 spectrum	**Conforms with structure**
Assay (HPLC)	**min. 90%**		
Purity by NMR P31	**min. 95%**		

Sphingosine-Spermine activated ester

$C_{86}H_{97}F_{18}N_{11}O_{15}$; M 1642.5;



Cat. No. 463124

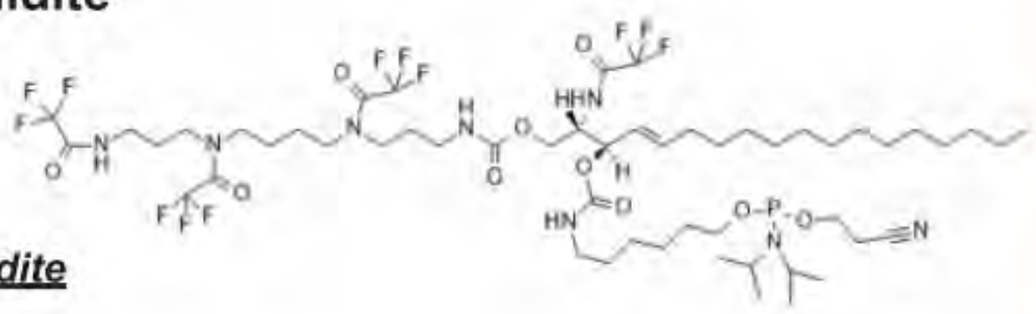
Sphingosine-Spermine activated ester

DNA synthesis

Appearance	**White to off-white solid**
Purity (HPLC)	**min. 90%**
NMR H1 spectrum	**Conform to structure**

Sphingolipid-Spermine phosphoramidite

$C_{71}H_{104}F_6N_8O_{16}P$; M 1431.6;



Cat. No. 459524

Sphingolipid-Spermine phosphoramidite

DNA synthesis

Appearance	**Colorless to light yellow oil**	NMR P31 spectrum	**Conforms with structure**
		NMR H1 spectrum	**Conforms with structure**
Purity (HPLC)	**min. 90%**		
Purity by NMR P31	**min. 95%**		

Synthesis Support Bulk*

Biosolve supports use the standard Long Chain Alkyl Amine (LCAA) linker but differ in the glass pore size, 500 A and 1000 A. Biosolve supports are fully end-capped to ensure that CPG surface is inert in order to give clean, reproducible reaction profiles.

Bulk CPG Loading & Specifications:

500 A supports 25-45 µmoles/g - Pore size 500A +/- 20%; Grain size 120-200 mesh

1000 A supports 25-45 µmoles/g - Pore size 1000A +/- 20%; Grain size 120-200 mesh

Recommended Length:

500 A supports Short oligo < 30-35-mer

1000 A supports Long oligo > 35-mer

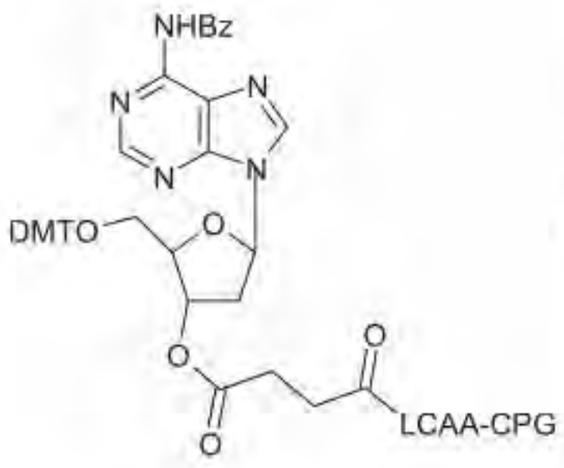
Product	Catalog N°	Pack Size (g)
dA(Bz)-CPG-500A	037624-50	1
	037624-49	10
	037624-54	50
	037624-56	100
dA(Bz)-CPG-1000A	038324-50	1
	038324-49	10
	038324-54	50
	038324-56	100
dC(Bz)-CPG-500A	037724-50	1
	037724-49	10
	037724-54	50
	037724-56	100
dC(Bz)-CPG-1000A	038424-50	1
	038424-49	10
	038424-54	50
	038424-56	100
dC(Ac)-CPG-500A	173024-50	1
	173024-49	10
	173024-54	50
	173024-56	100
dC(Ac)-CPG-1000A	173224-50	1
	173224-49	10
	173224-54	50
	173224-56	100
dG(iBu)-CPG-500A	037824-50	1
	037824-49	10
	037824-54	50
	037824-56	100
dG(iBu)-CPG-1000A	038524-50	1
	038524-49	10
	038524-54	50
	038524-56	100
dG(dmf)-CPG-500A	173124-50	1
	173124-49	10
	173124-54	50
	173124-56	100

Product	Catalog N°	Pack Size (g)
dG(dmf)-CPG-1000A	173324-50	1
	173324-49	10
	173324-54	50
	173324-56	100
dT-CPG-500A	037924-50	1
	037924-49	10
	037924-54	50
	037924-56	100
dT-CPG-1000A	038624-50	1
	038624-49	10
	038624-54	50
	038624-56	100
Native-CPG-500A	307424-50	1
	307424-49	10
	307424-54	50
	307424-56	100
Native-CPG-1000A	307524-50	1
	307524-49	10
	307524-54	50
	307524-56	100

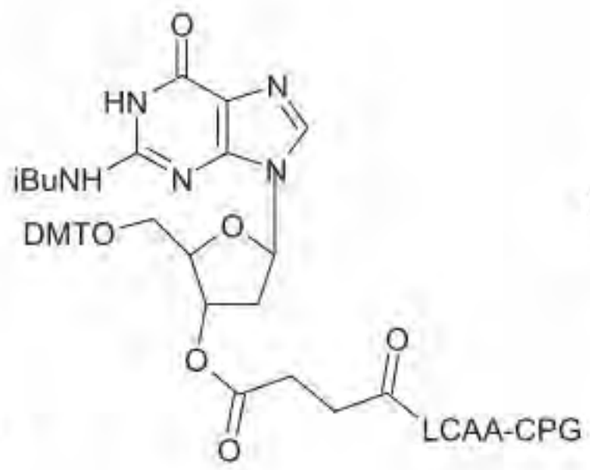
*For Poly Styrene and additional supports & packages please inquire

Abbreviations

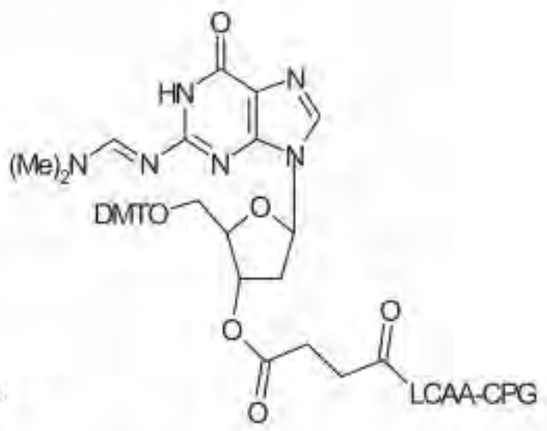
Ac	Acetyl	DMT	4,4' Dimethoxytrityl
Bz	Benzoyl	iBu	Isobutyryl
CPG	Controlled Pore Glass	iPr	Isopropyl
dmf	Dimethylformamidine	lcaa	Long Chain Alkyl Amine



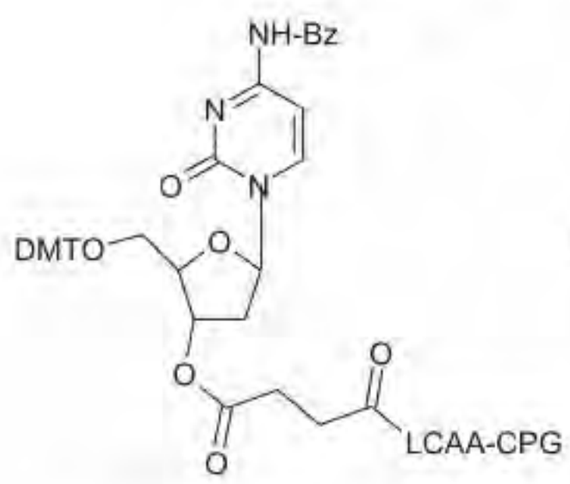
dA(Bz)-CPG



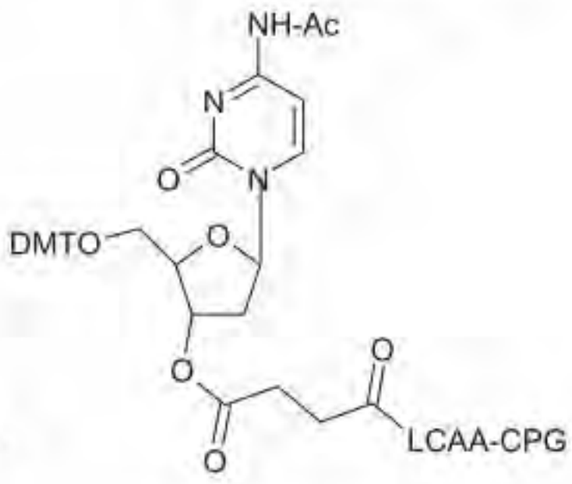
dG(iBu)-CPG



dG(dmf)-CPG



dC(Bz)-CPG



dC(Ac)-CPG

Synthesis Support Columns*

Product	Catalog N° for ABI Snap type	Catalog N° for ABI Crimp type	Catalog N° for Expedite
50nmole 500A			
A base	400024-1U	405024-1U	415024-1U
C base	400124-1U	405124-1U	415124-1U
G base	400224-1U	405224-1U	415224-1U
T base	400324-1U	405324-1U	415324-1U
Kit – ea. A,C,G,T base	400424-1K	405424-1K	415424-1K
50nmole 1000A			
A base	400524-1U	405524-1U	415524-1U
C base	400624-1U	405624-1U	415624-1U
G base	400724-1U	405724-1U	415724-1U
T base	400824-1U	405824-1U	415824-1U
Kit – ea. A,C,G,T base	400924-1K	405924-1K	415924-1K
0.2µmole 500A			
A base	401024-1U	406024-1U	416024-1U
C base	401124-1U	406124-1U	416124-1U
G base	401224-1U	406224-1U	416224-1U
T base	401324-1U	406324-1U	416324-1U
Kit – ea. A,C,G,T base	401424-1K	406424-1K	416424-1K
0.2µmole 1000A			
A base	401524-1U	406524-1U	416524-1U
C base	401624-1U	406624-1U	416624-1U
G base	401724-1U	406724-1U	416724-1U
T base	401824-1U	406824-1U	416824-1U
Kit – ea. A,C,G,T base	401924-1K	406924-1K	416924-1K
1.0µmole 500A			
A base	402024-1U	407024-1U	417024-1U
C base	402124-1U	407124-1U	417124-1U
G base	402224-1U	407224-1U	417224-1U
T base	402324-1U	407324-1U	417324-1U
Kit – ea. A,C,G,T base	402424-1K	407424-1K	417424-1K
1.0µmole 1000A			
A base	402524-1U	407524-1U	417524-1U
C base	402624-1U	407624-1U	417624-1U
G base	402724-1U	407724-1U	417724-1U
T base	402824-1U	407824-1U	417824-1U
Kit – ea. A,C,G,T base	402924-1K	407924-1K	417924-1K

*For Poly Styrene and additional supports please inquire

Liquid Reagents for ABI instruments

Activator BTT 0.25M

$C_8H_8N_4S$ UN 1648,3,II,F1

M 192.24 CAS [21871-47-6]

Danger H:225-312-318-332 P:101-102-103-210-241-303+361+353-305+351+338-310

Cat. No: 203824

0.25M BTT/Acetonitrile

Assay (T) 0.24-0.26M

Water (KF) max. 0.003%

Purity of BTT (HPLC) min. 99.5%

Standard pack:

20382402	2.5 L	4X2.5L G. Bottle 45
20382401	1 L	6X1L G. Bottle 45
20382420	450 ML	6X450ML 16oz/28
21622433	200 ML	6X200ML 8oz/24

Activator BTT 0.3M

$C_8H_8N_4S$ UN 1648,3,II,F1

M 192.24 CAS [21871-47-6]

Danger H:225-312-318-332 P:101-102-103-210-241-303+361+353-305+351+338-310

Cat. No: 216224

0.30M BTT/Acetonitrile

Assay (T) 0.28-0.32M

Water (KF) max. 0.003%

Purity of BTT (HPLC) min. 99.5%

Standard pack:

21622402	2.5 L	4X2.5L G. Bottle 45
21622401	1 L	6X1L G. Bottle 45
21622420	450 ML	6X450ML 16oz/28
21622433	200 ML	6X200ML 8oz/24

Activator DCI 0.25M

$C_5H_2N_4$ UN 1993,3,II,F1

M 118.1 CAS [1122-28-7]

Danger: H:225-302-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 047124

0.25M DCI/Acetonitrile

Purity DCI (HPLC) min. 99.5%

Water (KF) max. 0.003%

DCI assay 0.23-0.27M

Standard pack:

04712402	2.5 L	4X2.5L G. Bottle 45
04712420	450 ML	6X450ML 16oz/28
04712433	200 ML	6X200ML 8oz/24

Activator ETT 0.25M

$C_3H_6N_4S$ UN 1648,3,II,F1

M 130.17 CAS [89797-68-2]

Danger: H:225-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 205324

0.25M ETT/Acetonitrile

Water (KF)	max. 0.003%
Assay (T)	0.23-0.27M
Purity ETT (HPLC)	min. 99.8%

Standard pack:

20532402	2.5 L	4X2.5L G. Bottle 45
20532401	1 L	6X1L G. Bottle 45
20532420	450 ML	6X450ML 16oz/28
20532433	200 ML	6X200ML 8oz/24

Activator ETT 0.5M

$C_3H_6N_4S$ UN 1648,3,II,F1

M 130.17 CAS [89797-68-2]

Danger: H:225-312-319-332 EUH:044 P:210-241-261-303+361+353-305+351+338

Cat. No: 221124

0.5M ETT/Acetonitrile

Water (KF)	max. 0.005%
Assay (T)	0.48-0.52M
Purity ETT (HPLC)	min. 99.8%

Standard pack:

22112402	2.5 L	4X2.5L G. Bottle 45
22112401	1 L	6X1L G. Bottle 45
22112420	450 ML	6X450ML 16oz/28
22112433	200 ML	6X200ML 8oz/24

Activator Tetrazole 0.45M

CH_2N_4 UN 1648, 3, II, F1

M 70.05 CAS [288-94-8]

Danger: H:225-302-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 200824

0.45M Tetrazole/Acetonitrile

Water (KF)	max. 0.003%
Assay (Tetrazole)	30-32gr/L

Standard pack:

20082402	2.5 L	4X2.5L G. Bottle 45
20082417	950ML	6X1L G. Bottle 28
20082420	450 ML	6X450ML 16oz/28
20082433	200 ML	6X200ML 8oz/24

Cap A

UN 2924, 3+8, II, FC

Danger H:225-315-318-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No:	**035624**
THF/Pyr/Ac2O 80:10:10	
Pyridine	9.5-10.5%
Tetrahydrofuran	79-81%
Acetic anhydride	9.5-10.5%
Water (KF)	max. 0.01%

Standard pack:

03562402	2.5 L	4X2.5L G. Bottle 45
03562401	1 L	6X1L G. Bottle 45
03562420	450 ML	6X450ML 16oz/28
03562433	200 ML	6X200ML 8oz/24
03562418	180 ML	6X180ML 8oz/24

Cap A

UN 3286, 3+6.1+8, II, FTC

Danger H:225-302-315-318-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No:	**032324**
THF/Lut/Ac2O 80:10:10	
Lutidine	9.5-10.5%
Tetrahydrofuran	79-81%
Acetic anhydride	9.5-10.5%
Water (KF)	max. 0.01%

Standard pack:

03232404	4 L	4X4L G. bottle 32
03232402	2.5 L	4X2.5L G. Bottle 45
03232420	450 ML	6X450ML 16oz/28
03232433	200 ML	6X200ML 8oz/24

Cap A mild 5%

UN 1993,3,II,F1

Danger H:225-319-335 EUH:019 P:101-102-103-210-241-303+361+353-305+351+338-405

Cat. No:	**042824**
THF/Pyr/Pac2O 85:10:5	
Appearance	Clear liquid
Phenoxyacetic anhydride	4.5-5.5%w/v
Pyridine	9.5-10.5%
Tetrahydrofuran	84-86%
Water (KF)	max. 0.01%

Standard pack:

04282420	450 ML	6X450ML 16oz/28
04282433	200 ML	6X200ML 8oz/24

Cap A mild 10%

UN 1993, 3, II, F1

Danger H:225-319-335 EUH:019 P:101-102-103-210-241-303+361+353-305+351+338-405

Cat. No: **036824**

THF/Pyr/Pac2O 80:10:10

Appearance	Clear liquid
Phenoxyacetic anhydride	9.5-10.5%w/v
Pyridine	9.5-10.5%
Tetrahydrofuran	79-81%
Water (KF)	max. 0.01%

Standard pack:

03682420	450 ML	6X450ML 16oz/28
03682433	200 ML	6X200ML 8oz/24

Cap B 10%

UN 1993, 3, II, F1

Danger H:225-314-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No: **032424**

THF/NMI 90:10

N-Methylimidazole	9.5-10.5%v/v
Water (KF)	max. 0.01%

Standard pack:

03242402	2.5 L	4X2.5L G. Bottle 45
03242420	450 ML	6X450ML 16oz/28
03242433	200 ML	6X200ML 8oz/24
03242418	180 ML	6X180ML 8oz/24

Cap B 16%

UN 1993, 3, II, F1

Danger H:225-314-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No: **035724**

THF/NMI 84:16

N-Methylimidazole	15.2-16.8%v/v
Water (KF)	max. 0.01%

Standard pack:

03572404	4 L	4X4L G. bottle 32
03572402	2.5 L	4X2.5L G. Bottle 45
03572401	1 L	6X1L G. Bottle 45
03572420	450 ML	6X450ML 16oz/28
03572433	200 ML	6X200ML 8oz/24
03572418	180 ML	6X180ML 8oz/24
0357243G	100 ML	6X100/250ML 24

Deblock DCA 2% / DCM

UN 2810, 6.1, III, T1

Danger H:302-314-351 P:260-303+361+353-305+351+338-310

Cat. No: **044124**

2% DCA / DCM

DCA assay	1.9-2.1%v/v
Water (KF)	max. 0.005%

Standard pack:

04412402	2.5 L	4X2.5L G. Bottle 45
04412401	1 L	6X1L G. Bottle 45
04412420	450 ML	6X450ML 16oz/28
04412433	200 ML	6X200ML 8oz/24

Deblock DCA 3% / DCM

UN 2810, 6.1, III, T1

Danger H:302-315-318-351 P:280-305+351+338-310-321

Cat. No: **043124**

3% DCA / DCM

DCA assay	2.90-3.10%v/v
Water (KF)	max. 0.01%

Standard pack:

04312402	2.5 L	4X2.5L G. Bottle 45
04312420	450 ML	6X450ML 16oz/28
0431243A	250 ML	6X250ML G. Bottle 45
04312433	200 ML	6X200ML 8oz/24

Deblock TCA 2% / DCM

UN 2810, 6.1, III, T1

Danger H:302-315-318-335-336-351-411 P:261-305+351+338-310-321

Cat. No: **043224**

2% TCA / DCM

TCA assay	1.8-2.2%w/v
Water (KF)	max. 0.01%

Standard pack:

04322402	2.5 L	4X2.5L G. Bottle 45
04322401	1 L	6X1L G. Bottle 45
04322420	450 ML	6X450ML 16oz/28
04322433	200 ML	6X200ML 8oz/24

Deblock TCA 3% / DCM

UN 2810, 6.1, III, T1

Danger H:302-315-318-335-336-351-411 P:261-305+351+338-310-321

Cat. No: **041324**

3% TCA / DCM

TCA assay	2.90-3.10%w/v
Water (KF)	max. 0.01%

Standard pack:

041324P4	28 L	1X28L PE/Met. drum
04132404	4 L	4X4L G. bottle 32
04132402	2.5 L	4X2.5L G. Bottle 45
04132417	900 ML	6X1L G. Bottle 28
04132420	450 ML	6X450ML 16oz/28
04132433	200 ML	6X200ML 8oz/24

Oxidizer 0.02M

UN 1993, 3, II, F1

Danger H:225-302-319-332-335-336 EUH:019 P:210-241-303+361+353-305+351+338

Cat. No: **151024**

0.02M THF/Pyr/Water 70:20:10

Pyridine	19.5-20.5%
Tetrahydrofuran	69.5-70.5%
Iodine (I2)	4.8-5.5gr/L

Standard pack:

15102404	4 L	4X4L G. bottle 32
15102402	2.5 L	4X2.5L G. Bottle 45
15102401	1 L	6X1L G. Bottle 45
15102420	450 ML	6X450ML 16oz/28
15102433	200 ML	6X200ML 8oz/24

Oxidizer 0.1M

UN 1993, 3, II, F1

Danger H:225-302-319-332-335-336 EUH:019 P:210-241-303+361+353-305+351+338

Cat. No: **151624**

0.1M THF/Pyr/Water 70:10:20

Pyridine	9.5-10.5%
Tetrahydrofuran	69.5-70.5%
Iodine (I2)	24.1-26.7gr/L

Standard pack:

15162402	2.5 L	4X2.5L G. Bottle 45
15162433	200 ML	6X200ML 8oz/24

Oxidizer 0.1M

UN 1993, 3, II, F1

Danger H:225-302-319-335 EUH:019 P:101-102-103-210-241-303+361+353-305+351+338-405

Cat. No: 150624

0.1M THF/Pyr/Water 78:20:2

Appearance	Brown liquid
Pyridine	19.5-20.5%
Tetrahydrofuran	77.5-78.5%
Iodine (I2)	24.1-26.7gr/L

Standard pack:

15062402	2.5 L	4X2.5L G. Bottle 45
15062420	450 ML	6X450ML 16oz/28
15062433	200 ML	6X200ML 8oz/24

Liquid Reagents for Beckman instruments

Activator BTT 0.25M

$C_8H_8N_4S$ UN 1648,3,II,F1

M 192.24 CAS [21871-47-6]

Danger H:225-312-318-332 P:101-102-103-210-241-303+361+353-305+351+338-310

Cat. No: 203824

0.25M BTT/Acetonitrile

Assay (T)	0.24-0.26M
Water (KF)	max. 0.003%
Purity of BTT (HPLC)	min. 99.5%

Standard pack:

20382402	2.5 L	4X2.5L G. Bottle 45
20382401	1 L	6X1L G. Bottle 45
20382420	450 ML	6X450ML 16oz/28
21622433	200 ML	6X200ML 8oz/24

Activator BTT 0.3M

$C_8H_8N_4S$ UN 1648,3,II,F1

M 192.24 CAS [21871-47-6]

Danger H:225-312-318-332 P:101-102-103-210-241-303+361+353-305+351+338-310

Cat. No: 216224

0.30M BTT/Acetonitrile

Assay (T)	0.28-0.32M
Water (KF)	max. 0.003%
Purity of BTT (HPLC)	min. 99.5%

Standard pack:

21622402	2.5 L	4X2.5L G. Bottle 45
21622401	1 L	6X1L G. Bottle 45
21622420	450 ML	6X450ML 16oz/28
21622433	200 ML	6X200ML 8oz/24

Activator DCI 0.25M

$C_5H_2N_4$ UN 1993,3,II,F1

M 118.1 CAS [1122-28-7]

Danger H:225-302-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 047124

0.25M DCI/Acetonitrile

Purity DCI (HPLC)	min. 99.5%
Water (KF)	max. 0.003%
DCI assay	0.23-0.27M

Standard pack:

04712402	2.5 L	4X2.5L G. Bottle 45
04712420	450 ML	6X450ML 16oz/28
04712433	200 ML	6X200ML 8oz/24

Activator ETT 0.25M

$C_3H_6N_4S$ UN 1648,3,II,F1

M 130.17 CAS [89797-68-2]

Danger H:225-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 205324

0.25M ETT/Acetonitrile

Water (KF)	max. 0.003%
Assay (T)	0.23-0.27M
Purity ETT (HPLC)	min. 99.8%

Standard pack:

20532402	2.5 L	4X2.5L G. Bottle 45
20532401	1 L	6X1L G. Bottle 45
20532420	450 ML	6X450ML 16oz/28
20532433	200 ML	6X200ML 8oz/24

Activator ETT 0.5M

$C_3H_6N_4S$ UN 1648,3,II,F1

M 130.17 CAS [89797-68-2]

Danger H:225-312-319-332 EUH:044 P:210-241-261-303+361+353-305+351+338

Cat. No: 221124

0.5M ETT/Acetonitrile

Water (KF)	max. 0.005%
Assay (T)	0.48-0.52M
Purity ETT (HPLC)	min. 99.8%

Standard pack:

22112402	2.5 L	4X2.5L G. Bottle 45
22112401	1 L	6X1L G. Bottle 45
22112420	450 ML	6X450ML 16oz/28
22112433	200 ML	6X200ML 8oz/24

Activator Tetrazole 0.45M

CH_2N_4 UN 1648, 3, II, F1

M 70.05 CAS [288-94-8]

Danger H:225-302-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 200824

0.45M Tetrazole/Acetonitrile

Water (KF)	max. 0.003%
Assay (Tetrazole)	30-32gr/L

Standard pack:

20082402	2.5 L	4X2.5L G. Bottle 45
20082417	950ML	6X1L G. Bottle 28
20082420	450 ML	6X450ML 16oz/28
20082433	200 ML	6X200ML 8oz/24

Cap A

UN 2924, 3+8, II, FC

Danger H:225-315-318-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No: 035624

THF/Pyr/Ac2O 80:10:10

Pyridine	9.5-10.5%
Tetrahydrofuran	79-81%
Acetic anhydride	9.5-10.5%
Water (KF)	max. 0.01%

Standard pack:

03562402	2.5 L	4X2.5L G. Bottle 45
03562401	1 L	6X1L G. Bottle 45
03562420	450 ML	6X450ML 16oz/28
03562433	200 ML	6X200ML 8oz/24
03562418	180 ML	6X180ML 8oz/24

Cap A

UN 3286, 3+6.1+8, II, FTC

Danger H:225-302-315-318-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No: 032324

THF/Lut/Ac2O 80:10:10

Lutidine	9.5-10.5%
Tetrahydrofuran	79-81%
Acetic anhydride	9.5-10.5%
Water (KF)	max. 0.01%

Standard pack:

03232404	4 L	4X4L G. bottle 32
03232402	2.5 L	4X2.5L G. Bottle 45
03232420	450 ML	6X450ML 16oz/28
03232433	200 ML	6X200ML 8oz/24

Cap A mild 5%

UN 1993,3,II,F1

Danger H:225-319-335 EUH:019 P:101-102-103-210-241-303+361+353-305+351+338-405

Cat. No: **042824**

THF/Pyr/Pac2O 85:10:5

Appearance	Clear liquid
Phenoxyacetic anhydride	4.5-5.5%w/v
Pyridine	9.5-10.5%
Tetrahydrofuran	84-86%
Water (KF)	max. 0.01%

Standard pack:

04282420	450 ML	6X450ML 16oz/28
04282433	200 ML	6X200ML 8oz/24

Cap A mild 10%

UN 1993, 3, II, F1

Danger H:225-319-335 EUH:019 P:101-102-103-210-241-303+361+353-305+351+338-405

Cat. No: **036824**

THF/Pyr/Pac2O 80:10:10

Appearance	Clear liquid
Phenoxyacetic anhydride	9.5-10.5%w/v
Pyridine	9.5-10.5%
Tetrahydrofuran	79-81%
Water (KF)	max. 0.01%

Standard pack:

03682420	450 ML	6X450ML 16oz/28
03682433	200 ML	6X200ML 8oz/24

Cap B 10%

UN 1993, 3, II, F1

Danger H:225-314-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No: **032424**

THF/NMI 90:10

N-Methylimidazole	9.5-10.5%v/v
Water (KF)	max. 0.01%

Standard pack:

03242402	2.5 L	4X2.5L G. Bottle 45
03242420	450 ML	6X450ML 16oz/28
03242433	200 ML	6X200ML 8oz/24
03242418	180 ML	6X180ML 8oz/24

Cap B 16%

UN 1993, 3, II, F1

Danger H:225-314-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No: **035724**

THF/NMI 84:16

N-Methylimidazole	15.2-16.8%v/v
Water (KF)	max. 0.01%

Standard pack:

03572404	4 L	4X4L G. bottle 32
03572402	2.5 L	4X2.5L G. Bottle 45
03572401	1 L	6X1L G. Bottle 45
03572420	450 ML	6X450ML 16oz/28
03572433	200 ML	6X200ML 8oz/24
03572418	180 ML	6X180ML 8oz/24
0357243G	100 ML	6X100/250ML 24

Deblock TCA 3% / DCM

UN 2810, 6.1, III, T1

Danger H:302-315-318-335-336-351-411 P:261-305+351+338-310-321

Cat. No: **041324**

3% TCA / DCM

TCA assay	2.90-3.10%w/v
Water (KF)	max. 0.01%

Standard pack:

041324P4	28 L	1X28L PE/Met. drum
04132404	4 L	4X4L G. bottle 32
04132402	2.5 L	4X2.5L G. Bottle 45
04132417	900 ML	6X1L G. Bottle 28
04132420	450 ML	6X450ML 16oz/28
04132433	200 ML	6X200ML 8oz/24

Oxidizer 0.118M

UN 1993, 3, II, F1

Danger H:225-302-319-335-336 EUH:019 P:210-241-303+361+353-305+351+338

Cat. No: **152124**

0.118M THF/Pyr/Water 76:22:2

Pyridine	21.5-22.5%
THF	75.5-76.5%
Iodine (I2)	28.5-31.5gr/L

Standard pack:

15212402	2.5 L	4X2.5L G. Bottle 45

Liquid Reagents for Expedite instruments

Activator BTT 0.25M

$C_8H_8N_4S$ UN 1648, 3, II, F1

M 192.24 CAS [21871-47-6]

Danger H:225-312-318-332 P:101-102-103-210-241-303+361+353-305+351+338-310

Cat. No: 203824

0.25M BTT/Acetonitrile

Assay (T) 0.24-0.26M

Water (KF) max. 0.003%

Purity of BTT (HPLC) min. 99.5%

Standard pack:

20382402	2.5 L	4X2.5L G. Bottle 45
20382401	1 L	6X1L G. Bottle 45
20382420	450 ML	6X450ML 16oz/28
216224A2	200 ML	6X200ML 8oz/28

Activator BTT 0.3M

$C_8H_8N_4S$

M 192.24 UN 1648, 3, II, F1

Danger H:225-312-318-332 P:101-102-103-210-241-303+361+353-305+351+338-310

Cat. No: 216224

0.30M BTT/Acetonitrile

Assay (T) 0.28-0.32M

Water (KF) max. 0.003%

Purity of BTT (HPLC) min. 99.5%

Standard pack:

21622402	2.5 L	4X2.5L G. Bottle 45
21622401	1 L	6X1L G. Bottle 45
21622420	450 ML	6X450ML 16oz/28
216224A2	200 ML	6X200ML 8oz/28

Activator DCI 0.25M

$C_5H_2N_4$

M 118.1 UN 1993, 3, II, F1

Danger H:225-302-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 047124

0.25M DCI/Acetonitrile

Purity DCI (HPLC) min. 99.5%

Water (KF) max. 0.003%

DCI assay 0.23-0.27M

Standard pack:

04712402	2.5 L	4X2.5L G. Bottle 45
04712420	450 ML	6X450ML 16oz/28
047124A2	200 ML	6X200ML 8oz/28

Activator ETT 0.25M

$C_3H_6N_4S$ UN 1648, 3, II, F1

M 130.17 CAS [89797-68-2]

Danger H:225-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 205324

0.25M ETT/Acetonitrile

Water (KF)	max. 0.003%
Assay (T)	0.23-0.27M
Purity ETT (HPLC)	min. 99.8%

Standard pack:

20532402	2.5 L	4X2.5L G. Bottle 45
20532401	1 L	6X1L G. Bottle 45
20532420	450 ML	6X450ML 16oz/28
205324A2	200 ML	6X200ML 8oz/28

Activator ETT 0.5M

$C_3H_6N_4S$ UN 1648, 3, II, F1

M 130.17 CAS [89797-68-2]

Danger H:225-312-319-332 EUH:044 P:210-241-261-303+361+353-305+351+338

Cat. No: 221124

0.5M ETT/Acetonitrile

Water (KF)	max. 0.005%
Assay (T)	0.48-0.52M
Purity ETT (HPLC)	min. 99.8%

Standard pack:

22112402	2.5 L	4X2.5L G. Bottle 45
22112401	1 L	6X1L G. Bottle 45
22112420	450 ML	6X450ML 16oz/28
221124A2	200 ML	6X200ML 8oz/28

Activator Tetrazole 0.45M

CH_2N_4 UN 1648, 3, II, F1

M 70.05 CAS [288-94-8]

Danger H:225-302-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 200824

0.45M Tetrazole/Acetonitrile

Water (KF)	max. 0.003%
Assay (Tetrazole)	30-32gr/L

Standard pack:

20082402	2.5 L	4X2.5L G. Bottle 45
20082417	950ML	6X1L G. Bottle 28
20082420	450 ML	6X450ML 16oz/28
200824A2	200 ML	6X200ML 8oz/28

Cap A

UN 2924, 3+8, II, FC

Danger H:225-315-318-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No:	**033624**
THF/Ac2O 90:10	
Acetic anhydride	9.5-10.5%
Water (KF)	max. 0.01%

Standard pack:

03362402	2.5 L	4X2.5L G. Bottle 45
03362401	1 L	6X1L G. Bottle 45
03362420	450 ML	6X450ML 16oz/28
033624A2	200 ML	6X200ML 8oz/28
0336241C	180 ML	6X180ML 8oz/28

Cap A mild 5%

UN 2056, 3, II, F1

Danger H:225-315-319-335 EUH:019 P:210-241-303+361+353-305+351+338

Cat. No:	**042724**
THF/Pac2O 95:5	
Appearance	Clear liquid
Phenoxyacetic anhydride	4.5-5.5%w/v
Water (KF)	max. 0.01%

Standard pack:

04272420	450 ML	6X450ML 16oz/28
042724A2	200 ML	6X200ML 8oz/28
0427241C	180 ML	6X180ML 8oz/28

Cap A mild 10%

UN 2056, 3, II, F1

Danger H:225-315-319-335 EUH:019 P:210-241-303+361+353-305+351+338

Cat. No:	**036924**
THF/Pac2O 90:10	
Phenoxyacetic anhydride	9.5-10.5%w/v
Water (KF)	max. 0.01%

Standard pack:

03692402	2.5 L	4X2.5L G. Bottle 45

Cap B

UN 1993, 3, II, F1

Danger H:225-302-314-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No:	**033524**
THF/Pyr/NMI 80:10:10	
Pyridine	9.5-10.5%
Tetrahydrofuran	79-81%
N-Methylimidazole	9.5-10.5%
Water (KF)	max. 0.01%

Standard pack:

03352402	2.5 L	4X2.5L G. Bottle 45
03352401	1 L	6X1L G. Bottle 45
03352420	450 ML	6X450ML 16oz/28
033524A2	200 ML	6X200ML 8oz/28

Deblock DCA 3% / DCE

UN 1992, 3+6.1, II, FT1

Danger H:225-302-315-318-335-350 P:101-102-103-210-303+361+353-305+351+338-310-405

Cat. No: 040424

3% DCA / DCE

DCA assay	2.90-3.10%v/v
Water (KF)	max. 0.005%

Standard pack:

04042402	2.5 L	4X2.5L G. Bottle 45
04042401	1 L	6X1L G. Bottle 45
04042420	450 ML	6X450ML 16oz/28
040424A2	200 ML	6X200ML 8oz/28

Deblock TCA 3% / DCM

UN 2810, 6.1, III, T1

Danger H:302-315-318-335-336-351-411 P:261-305+351+338-310-321

Cat. No: 041324

3% TCA / DCM

TCA assay	2.90-3.10%w/v
Water (KF)	max. 0.01%

Standard pack:

041324P4	28 L	1X28L PE/Met. drum
04132404	4 L	4X4L G. bottle 32
04132402	2.5 L	4X2.5L G. Bottle 45
04132417	900 ML	6X1L G. Bottle 28
04132420	450 ML	6X450ML 16oz/28
041324A2	200 ML	6X200ML 8oz/28

Oxidizer 0.02M

UN 1993, 3, II, F1

Danger H:225-319-335-336 EUH:019 P:210-241-303+361+353-305+351+338

Cat. No: 151824

0.02M THF/Pyr/Water 70:10:20

Pyridine	9.5-10.5%
Tetrahydrofuran	69.5-70.5%
Iodine (I2)	4.8-5.5gr/L

Standard pack:

15182402	2.5 L	4X2.5L G. Bottle 45
15182401	1 L	6X1L G. Bottle 45
15182420	450 ML	6X450ML 16oz/28
151824A2	200 ML	6X200ML 8oz/28

Oxidizer 0.02M

UN 1993, 3, II, F1

Danger H:225-319-335-336 EUH:019 P:210-241-303+361+353-305+351+338

Cat. No: 150924

0.02M THF/Pyr/Water 89.6:0.4:10

Pyridine	0.36-0.44%
Tetrahydrofuran	88.5-90.5%
Iodine (I2)	4.8-5.5gr/L

Standard pack:

15092402	2.5 L	4X2.5L G. Bottle 45
15092420	450 ML	6X450ML 16oz/28
150924A2	200 ML	6X200ML 8oz/28

Liquid Reagents for AKTA Oligopilot

Activator BTT 0.3M

$C_8H_8N_4S$ UN 1648,3,II,F1

M 192.24 CAS [21871-47-6]

Danger H:225-312-318-332 P:101-102-103-210-241-303+361+353-305+351+338-310

Cat. No: 216224

0.30M BTT/Acetonitrile

Assay (T)	0.28-0.32M
Water (KF)	max. 0.003%
Purity of BTT (HPLC)	min. 99.5%

Standard pack:

21622402	2.5 L	4X2.5L G. Bottle 45
21622401	1 L	6X1L G. Bottle 45
21622420	450 ML	6X450ML 16oz/28

Activator ETT 0.25M

$C_3H_6N_4S$ UN 1648,3,II,F1

M 130.17 CAS [89797-68-2]

Danger H:225-312-318-332 P:101-102-103-210-241-303+361+353-305+351+338-310

Cat. No: 205324

0.25M ETT/Acetonitrile

Water (KF)	max. 0.003%
Assay (T)	0.23-0.27M
Purity ETT (HPLC)	min. 99.8%

Standard pack:

20532402	2.5 L	4X2.5L G. Bottle 45
20532401	1 L	6X1L G. Bottle 45
20532420	450 ML	6X450ML 16oz/28

Activator Tetrazole 0.4M

CH_2N_4 UN 1648, 3, II, F1

M 70.05 CAS [288-94-8]

Danger H:225-302-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 206924

0.4M Tetrazole/Acetonitrile

Water (KF)	max. 0.005%
Assay (Tetrazole)	26.6-29.4gr/L
Purity of ACN	min. 99.9%
Purity of 1H-Tetrazole	min. 99.9%

Standard pack:

20692402	2.5 L	4X2.5L G. Bottle 45
20692401	1 L	6X1L G. Bottle 45

Cap A

UN 2924, 3+8, II, FC

Danger H:225-312-314-332 P:210-303+361+353-305+351+338-310

Cat. No: 036124

ACN/NMI 80:20

N-Methylimidazole	19.5-20.5%
Water (KF)	max. 0.005%
Purity of ACN	min. 99.9%
Purity of NMI	min. 99%

Standard pack:

03612455	45 L	1X45L Stain/st. drum
03612430	25 L	1X25L Stain/st. drum
03612402	2.5 L	4X2.5L G. Bottle 45
03612401	1 L	6X1L G. Bottle 45
03612435	500 ML	6X0.5L G. Bottle 32
0361243A	250 ML	6X250ML G. Bottle 45

Cap B kit

UN 3286,3+6.1+8,II,FTC

Danger H:225-302-315-318-335-336 P:101-102-103-210-303+361+353-305+351+338-310-405

Cat. No: 036524

CAP B1+CAP B2

Appearance - Part B1	Clear solution
Acetic anhydride - Part B1	39.5-40.5%
Water - Part B1	max. 0.005%
Apperance - Part B2	Clear solution
Lutidine - Part B2	59.5-60.5%
Water - Part B2	max. 0.01%
Color (APHA) - Part B2	max. 15

Standard pack:

03652402	2.5 L	4X1.25/2.5L G.Bottle 45
03652401	1 L	6X0.5/1L G.Bottle 45
0365243A	125 ML	6X125/250ML G.Bottle 45

Cap B1

UN 2924, 3+8, II, FC

Danger H:225-312-314-332-335-336 P:210-303+361+353-305+351+338-310

Cat. No:	**037424**	
Ac2O/ACN 40:60		
Appearance	Clear solution	
Acetic anhydride	39.5-40.5%	
Acetonitrile	59.5-60.5%	
Water	max. 0.005%	
Standard pack:		
03742455	45 L	1X45L Stain/st. drum
03742430	25 L	1X25L Stain/st. drum
03742402	2.5 L	4X2.5L G. Bottle 45
03742401	1 L	6X1L G. Bottle 45
03742444	500 ML	6X0.5/1L G.Bottle 45
037424G5	500 ML	6X0.5L G. Bottle 45
0374243B	125 ML	6X125/250ML 45

Cap B2

UN 1992, 3+6., II, FT1

Danger H:225-302-319 P:210-241-280-303+361+353-305+351+338

Cat. No:	**037524**	
Lut/ACN 60:40		
Color (APHA)	max. 15	
Apperance	Clear solution	
Lutidine	59.5-60.5%	
Acetonitrile	39.5-40.5%	
Water	max. 0.01%	
Standard pack:		
03752455	45 L	1X45L Stain/st. drum
03752430	25 L	1X25L Stain/st. drum
03752402	2.5 L	4X2.5L G. Bottle 45
03752401	1 L	6X1L G. Bottle 45
03752444	500 ML	6X0.5/1L G.Bottle 45
037524G5	500 ML	6X0.5L G. Bottle 45
0375243B	125 ML	6X125/250ML 45

Deblock DCA 3% / DCM

UN 2810, 6.1, III, T1

Danger H:302-315-318-351 P:280-305+351+338-310-321

Cat. No:	**043124**	
3% DCA / DCM		
DCA assay	2.90-3.10%v/v	
Water (KF)	max. 0.01%	
Standard pack:		
04312402	2.5 L	4X2.5L G. Bottle 45
04312420	450 ML	6X450ML 16oz/28
0431243A	250 ML	6X250ML G. Bottle 45

Deblock DCA 2% / Toluene

UN 1993, 3, II, F1

Danger H:225-304-315-319-336-361-373 P:210-301+310-303+361+353-305+351+338

Cat. No: **300724**

2% DCA / Toluene

DCA assay	1.9-2.1%v/v
Water (KF)	max. 0.003%

Standard pack:

30072404	4 L	4X4L G. bottle 32

Deblock DCA 3% / Toluene

UN 1993, 3, II, F1

Danger H:225-304-314-336-373-361d P:301+310-303+361+353-305+351+338-310

Cat. No: **273224**

3% DCA / Toluene

DCA assay	2.90-3.10%v/v
Water (KF)	max. 0.003%

Standard pack:

27322404	4 L	4X4L G. bottle 32
27322402	2.5 L	4X2.5L G. Bottle 45
27322401	1 L	6X1L G. Bottle 45

Deblock DCA 5% / Toluene

UN 2924, 3+8, II, FC

Danger H:225-304-314-336-373-361d P:301+310-303+361+353-305+351+338-310

Cat. No: **273324**

5% DCA / Toluene

Appearance	Clear solution
DCA assay	5.9-6.1%v/v
Water (KF)	max. 0.005%

Standard pack:

27332401	1 L	6X1L G. Bottle 45

Deblock DCA 10% / Toluene

UN 2924, 3+8, II, FC

Danger H:225-304-314-336-373-361d P:301+310-303+361+353-305+351+338-310

Cat. No: **275324**

10% DCA / Toluene

Appearance	Clear solution
DCA assay	9.9-10.1%v/v
Water (KF)	max. 0.005%

Standard pack:

27532401	1 L	6X1L G. Bottle 45

Deblock TCA 3% / DCM

UN 2810, 6.1, III, T1

Danger H:302-315-318-335-336-351-411 P:261-305+351+338-310-321

Cat. No:	**041324**
3% TCA / DCM	
TCA assay	2.90-3.10%w/v
Water (KF)	max. 0.01%

Standard pack:

041324P4	28 L	1X28L PE/Met. drum
04132404	4 L	4X4L G. bottle 32
04132402	2.5 L	4X2.5L G. Bottle 45
04132417	900 ML	6X1L G. Bottle 28
04132420	450 ML	6X450ML 16oz/28

Deblock TCA 3% / Toluene

UN 1993, 3, II, F1

Danger H:225-315-318-336-361-373-411 P:301+310-303+361+353-305+351+338-310

Cat. No:	**300624**
3% TCA / Toluene	
TCA assay	2.9-3.1%w/v
Water (KF)	max. 0.003%

Standard pack:

30062402	2.5 L	4X2.5L G. Bottle 45
30062420	450 ML	6X450ML 16oz/28

Diethylamine 20% in Acetonitrile

UN 2924, 3+8, II, FC

Danger H:225-302-312-314-332-335-336 P:101-102-103-210-303+361+353-305+351+338-310-405

Cat. No:	**273424**
20% DEA/Acetonitrile	
Assay (T)	19.5-20.5%v/v
Water (KF)	max. 0.005%

Standard pack:

27342402	2.5 L	4X2.5L G. Bottle 45
27342401	1 L	6X1L G. Bottle 45

Oxidizer 0.05M

UN 1282, 3, II, F1

Danger H:225-302-312-332 P:210-241-261-280-303+361+353

Cat. No:	**150724**
0.05M Pyr/Water 90:10	
Pyridine	89-91%
Water	9-11%
Iodine (I2)	12.2-13.2gr/L

Standard pack:

15072402	2.5 L	4X2.5L G. Bottle 45
15072401	1 L	6X1L G. Bottle 45
1507243A	250 ML	6X250ML G. Bottle 45

Liquid Reagents for MerMade instruments

Activator BTT 0.25M

$C_8H_8N_4S$ UN 1648,3,II,F1

M 192.24 CAS [21871-47-6]

Danger H:225-312-318-332 P:101-102-103-210-241-303+361+353-305+351+338-310

Cat. No: 203824

0.25M BTT/Acetonitrile

Assay (T)	0.24-0.26M
Water (KF)	max. 0.003%
Purity of BTT (HPLC)	min. 99.5%

Standard pack:

20382402	2.5 L	4X2.5L G. Bottle 45
20382401	1 L	6X1L G. Bottle 45
20382420	450 ML	6X450ML 16oz/28

Activator BTT 0.3M

$C_8H_8N_4S$ UN 1648,3,II,F1

M 192.24 CAS [21871-47-6]

Danger H:225-312-318-332 P:101-102-103-210-241-303+361+353-305+351+338-310

Cat. No: 216224

0.30M BTT/Acetonitrile

Assay (T)	0.28-0.32M
Water (KF)	max. 0.003%
Purity of BTT (HPLC)	min. 99.5%

Standard pack:

21622402	2.5 L	4X2.5L G. Bottle 45
21622401	1 L	6X1L G. Bottle 45
21622420	450 ML	6X450ML 16oz/28

Activator DCI 0.25M

$C_5H_2N_4$ UN 1993,3,II,F1

M 118.1 CAS [1122-28-7]

Danger H:225-302-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 047124

0.25M DCI/Acetonitrile

Purity DCI (HPLC)	min. 99.5%
Water (KF)	max. 0.003%
DCI assay	0.23-0.27M

Standard pack:

04712402	2.5 L	4X2.5L G. Bottle 45
04712420	450 ML	6X450ML 16oz/28

Activator ETT 0.25M

$C_3H_6N_4S$ UN 1648,3,II,F1

M 130.17 CAS [89797-68-2]

Danger H:225-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 205324

0.25M ETT/Acetonitrile

Water (KF)	max. 0.003%
Assay (T)	0.23-0.27M
Purity ETT (HPLC)	min. 99.8%

Standard pack:

20532402	2.5 L	4X2.5L G. Bottle 45
20532401	1 L	6X1L G. Bottle 45
20532420	450 ML	6X450ML 16oz/28

Activator Tetrazole 0.45M

CH_2N_4 UN 1648, 3, II, F1

M 70.05 CAS [288-94-8]

Danger H:225-302-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 200824

0.45M Tetrazole/Acetonitrile

Water (KF)	max. 0.003%
Assay (Tetrazole)	30-32gr/L

Standard pack:

20082402	2.5 L	4X2.5L G. Bottle 45
20082417	950ML	6X1L G. Bottle 28
20082420	450 ML	6X450ML 16oz/28

Cap A

UN 2924, 3+8, II, FC

Danger H:225-315-318-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No: 035624

THF/Pyr/Ac2O 80:10:10

Pyridine	9.5-10.5%
Tetrahydrofuran	79-81%
Acetic anhydride	9.5-10.5%
Water (KF)	max. 0.01%

Standard pack:

03562402	2.5 L	4X2.5L G. Bottle 45
03562401	1 L	6X1L G. Bottle 45
03562420	450 ML	6X450ML 16oz/28

Cap A

UN 3286, 3+6.1+8, II, FTC

Danger H:225-302-315-318-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No:	**032324**	
THF/Lut/Ac2O 80:10:10		
Lutidine	9.5-10.5%	
Tetrahydrofuran	79-81%	
Acetic anhydride	9.5-10.5%	
Water (KF)	max. 0.01%	
Standard pack:		
03232404	4 L	4X4L G. bottle 32
03232402	2.5 L	4X2.5L G. Bottle 45
03232420	450 ML	6X450ML 16oz/28

Cap B 10%

UN 1993, 3, II, F1

Danger H:225-314-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No:	**032424**	
THF/NMI 90:10		
N-Methylimidazole	9.5-10.5%v/v	
Water (KF)	max. 0.01%	
Standard pack:		
03242402	2.5 L	4X2.5L G. Bottle 45
03242420	450 ML	6X450ML 16oz/28

Cap B 16%

UN 1993, 3, II, F1

Danger H:225-314-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No:	**035724**	
THF/NMI 84:16		
N-Methylimidazole	15.2-16.8%v/v	
Water (KF)	max. 0.01%	
Standard pack:		
03572404	4 L	4X4L G. bottle 32
03572402	2.5 L	4X2.5L G. Bottle 45
03572401	1 L	6X1L G. Bottle 45
03572420	450 ML	6X450ML 16oz/28

Deblock TCA 3% / DCM

UN 2810, 6.1, III, T1

Danger H:302-315-318-335-336-351-411 P:261-305+351+338-310-321

Cat. No:	**041324**	
3% TCA / DCM		
TCA assay	2.90-3.10%w/v	
Water (KF)	max. 0.01%	
Standard pack:		
041324P4	28 L	1X28L PE/Met. drum
04132404	4 L	4X4L G. bottle 32
04132402	2.5 L	4X2.5L G. Bottle 45
04132417	900 ML	6X1L G. Bottle 28
04132420	450 ML	6X450ML 16oz/28

Oxidizer 0.02M

UN 1993, 3, II, F1

Danger H:225-302-319-332-335-336 EUH:019 P:210-241-303+361+353-305+351+338

Cat. No: 151024

0.02M THF/Pyr/Water 70:20:10

Pyridine	19.5-20.5%
Tetrahydrofuran	69.5-70.5%
Iodine (I2)	4.8-5.5gr/L

Standard pack:

15102404	4 L	4X4L G. bottle 32
15102402	2.5 L	4X2.5L G. Bottle 45
15102401	1 L	6X1L G. Bottle 45
15102420	450 ML	6X450ML 16oz/28

Oxidizer 0.1M

UN 1993, 3, II, F1

Danger H:225-302-319-332-335-336 EUH:019 P:210-241-303+361+353-305+351+338

Cat. No: 151624

0.1M THF/Pyr/Water 70:10:20

Pyridine	9.5-10.5%
Tetrahydrofuran	69.5-70.5%
Iodine (I2)	24.1-26.7gr/L

Standard pack:

15162402	2.5 L	4X2.5L G. Bottle 45

Liquid Reagents for Polygene instruments

Activator BTT 0.25M

$C_8H_8N_4S$ UN 1648, 3, II, F1

M 192.24 CAS [21871-47-6]

Danger H:225-312-318-332 P:101-102-103-210-241-303+361+353-305+351+338-310

Cat. No: 203824

0.25M BTT/Acetonitrile

Assay (T)	0.24-0.26M
Water (KF)	max. 0.003%
Purity of BTT (HPLC)	min. 99.5%

Standard pack:

20382402	2.5 L	4X2.5L G. Bottle 45
20382401	1 L	6X1L G. Bottle 45
20382420	450 ML	6X450ML 16oz/28
216224A2	200 ML	6X200ML 8oz/28

Activator BTT 0.3M

$C_8H_8N_4S$

M 192.24 UN 1648, 3, II, F1

Danger H:225-312-318-332 P:101-102-103-210-241-303+361+353-305+351+338-310

Cat. No: 216224

0.30M BTT/Acetonitrile

Assay (T) 0.28-0.32M

Water (KF) max. 0.003%

Purity of BTT (HPLC) min. 99.5%

Standard pack:

21622402	2.5 L	4X2.5L G. Bottle 45
21622401	1 L	6X1L G. Bottle 45
21622420	450 ML	6X450ML 16oz/28
216224A2	200 ML	6X200ML 8oz/28

Activator DCI 0.25M

$C_5H_2N_4$

M 118.1 UN 1993, 3, II, F1

Danger H:225-302-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 047124

0.25M DCI/Acetonitrile

Purity DCI (HPLC) min. 99.5%

Water (KF) max. 0.003%

DCI assay 0.23-0.27M

Standard pack:

04712402	2.5 L	4X2.5L G. Bottle 45
04712420	450 ML	6X450ML 16oz/28
047124A2	200 ML	6X200ML 8oz/28

Activator ETT 0.25M

$C_3H_6N_4S$ UN 1648, 3, II, F1

M 130.17 CAS [89797-68-2]

Danger H:225-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 205324

0.25M ETT/Acetonitrile

Water (KF) max. 0.003%

Assay (T) 0.23-0.27M

Purity ETT (HPLC) min. 99.8%

Standard pack:

20532402	2.5 L	4X2.5L G. Bottle 45
20532401	1 L	6X1L G. Bottle 45
20532420	450 ML	6X450ML 16oz/28
205324A2	200 ML	6X200ML 8oz/28

Activator ETT 0.5M

$C_3H_6N_4S$ UN 1648, 3, II, F1

M 130.17 CAS [89797-68-2]

Danger H:225-312-319-332 EUH:044 P:210-241-261-303+361+353-305+351+338

Cat. No: 221124

0.5M ETT/Acetonitrile

Water (KF)	max. 0.005%
Assay (T)	0.48-0.52M
Purity ETT (HPLC)	min. 99.8%

Standard pack:

22112402	2.5 L	4X2.5L G. Bottle 45
22112401	1 L	6X1L G. Bottle 45
22112420	450 ML	6X450ML 16oz/28
221124A2	200 ML	6X200ML 8oz/28

Activator Tetrazole 0.45M

CH_2N_4 UN 1648, 3, II, F1

M 70.05 CAS [288-94-8]

Danger H:225-302-312-319-332 P:210-241-261-303+361+353-305+351+338

Cat. No: 200824

0.45M Tetrazole/Acetonitrile

Water (KF)	max. 0.003%
Assay (Tetrazole)	30-32gr/L

Standard pack:

20082402	2.5 L	4X2.5L G. Bottle 45
20082417	950ML	6X1L G. Bottle 28
20082420	450 ML	6X450ML 16oz/28
200824A2	200 ML	6X200ML 8oz/28

Cap A

UN 2924, 3+8, II, FC

Danger H:225-315-318-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No: 033624

THF/Ac2O 90:10

Acetic anhydride	9.5-10.5%
Water (KF)	max. 0.01%

Standard pack:

03362402	2.5 L	4X2.5L G. Bottle 45
03362401	1 L	6X1L G. Bottle 45
03362420	450 ML	6X450ML 16oz/28
033624A2	200 ML	6X200ML 8oz/28
0336241C	180 ML	6X180ML 8oz/28

Cap A mild 5%

UN 2056, 3, II, F1

Danger H:225-315-319-335 EUH:019 P:210-241-303+361+353-305+351+338

Cat. No: 042724

THF/Pac2O 95:5

Appearance	Clear liquid
Phenoxyacetic anhydride	4.5-5.5%w/v
Water (KF)	max. 0.01%

Standard pack:

04272420	450 ML	6X450ML 16oz/28
042724A2	200 ML	6X200ML 8oz/28
0427241C	180 ML	6X180ML 8oz/28

Cap A mild 10%

UN 2056, 3, II, F1

Danger H:225-315-319-335 EUH:019 P:210-241-303+361+353-305+351+338

Cat. No: 036924

THF/Pac2O 90:10

Phenoxyacetic anhydride	9.5-10.5%w/v
Water (KF)	max. 0.01%

Standard pack:

03692402	2.5 L	4X2.5L G. Bottle 45

Cap B

UN 1993, 3, II, F1

Danger H:225-302-314-335-336 EUH:019 P:210-303+361+353-305+351+338-310

Cat. No: 033524

THF/Pyr/NMI 80:10:10

Pyridine	9.5-10.5%
Tetrahydrofuran	79-81%
N-Methylimidazole	9.5-10.5%
Water (KF)	max. 0.01%

Standard pack:

03352402	2.5 L	4X2.5L G. Bottle 45
03352401	1 L	6X1L G. Bottle 45
03352420	450 ML	6X450ML 16oz/28
033524A2	200 ML	6X200ML 8oz/28

Deblock DCA 3% / DCE

UN 1992, 3+6.1, II, FT1

Danger H:225-302-315-318-335-350 P:101-102-103-210-303+361+353-305+351+338-310-405

Cat. No:	**040424**
3% DCA / DCE	
DCA assay	2.90-3.10%v/v
Water (KF)	max. 0.005%

Standard pack:

04042402	2.5 L	4X2.5L G. Bottle 45
04042401	1 L	6X1L G. Bottle 45
04042420	450 ML	6X450ML 16oz/28
040424A2	200 ML	6X200ML 8oz/28

Deblock TCA 3% / DCE

UN 2929, 6.1+3, II, TF1

Danger H:226-302-315-318-335-350-411 P:210-303+361+353-305+351+338-310

Cat. No:	**043324**
3% TCA / DCE	
TCA assay	2.90-3.10%w/v
Water (KF)	max. 0.005%

Standard pack:

04332404	4 L	4X4L G. bottle 32
04332402	2.5 L	4X2.5L G. Bottle 45
04332401	1 L	6X1L G. Bottle 45

Oxidizer 0.1M

UN 1993, 3, II, F1

Danger H:225-302-319-332-335-336 EUH:019 P:210-241-303+361+353-305+351+338

Cat. No:	**151624**
0.1M THF/Pyr/Water 70:10:20	
Pyridine	9.5-10.5%
Tetrahydrofuran	69.5-70.5%
Iodine (I2)	24.1-26.7gr/L

Standard pack:

15162402	2.5 L	4X2.5L G. Bottle 45

List of Liquid Reagents & Standard Packs:

Activator BTT 0.25M
Cat. No: 203824

0.25M 5-(Benzylthio)-1H-Tetrazole/Acetonitrile

Standard pack:

20382402	2.5 L	4X2.5L G. Bottle 45
20382401	1 L	6X1L G. Bottle 45
20382420	450 ML	6X450ML 16oz/28

Activator BTT 0.3M
Cat. No: 216224

0.30M 5-(Benzylthio)-1H-Tetrazole/Acetonitrile

Standard pack:

21622401	1 L	6X1L G. Bottle 45
21622402	2.5 L	4X2.5L G. Bottle 45
21622420	450 ML	6X450ML 16oz/28
21622433	200 ML	6X200ML 8oz/24
216224A2	200 ML	6X200ML 8oz/28

Activator ETT 0.25M
Cat. No: 205324

0.25M 5-(Ethylthio)-1H-Tetrazole/Acetonitrile

Standard pack:

20532402	2.5 L	4X2.5L G. Bottle 45
20532401	1 L	6X1L G. Bottle 45
20532420	450 ML	6X450ML 16oz/28
20532433	200 ML	6X200ML 8oz/24
205324A2	200 ML	6X200ML 8oz/28

Activator ETT 0.5M
Cat. No: 221124

0.5M 5-(Ethylthio)-1H-Tetrazole/Acetonitrile

Standard pack:

22112402	2.5 L	4X2.5L G. Bottle 45
22112401	1 L	6X1L G. Bottle 45
22112420	450 ML	6X450ML 16oz/28
22112433	200 ML	6X200ML 8oz/24
221124A2	200 ML	6X200ML 8oz/28

Activator DCI 0.25M
Cat. No: 047124

0.25M 4,5-Dicyanoimidazole/Acetonitrile

Standard pack:

04712402	2.5 L	4X2.5L G. Bottle 45
04712420	450 ML	6X450ML 16oz/28
04712433	200 ML	6X200ML 8oz/24
047124A2	200 ML	6X200ML 8oz/28

Activator Tetrazole 0.4M
Cat. No: 206924

0.4M 1H-Tetrazole/Acetonitrile

Standard pack:

20692402	2.5 L	4X2.5L G. Bottle 45
20692401	1 L	6X1L G. Bottle 45

Activator Tetrazole 0.45M

Cat. No: **200824**

0.45M 1H-Tetrazole/Acetonitrile

Standard pack:

20082402	2.5 L	4X2.5L G. Bottle 45
20082417	950ML	6X1L G. Bottle 28
20082420	450 ML	6X450ML 16oz/28
20082433	200 ML	6X200ML 8oz/24
200824A2	200 ML	6X200ML 8oz/28

Cap A

Cat. No: **032324**

THF/Lut/Ac2O 80:10:10

Standard pack:

03232404	4 L	4X4L G. Bottle 32
03232402	2.5 L	4X2.5L G. Bottle 45
03232420	450 ML	6X450ML 16oz/28
03232433	200 ML	6X200ML 8oz/24

Cap A

Cat. No: **035624**

THF/Pyr/Ac2O 80:10:10

Standard pack:

03562402	2.5 L	4X2.5L G. Bottle 45
03562401	1 L	6X1L G. Bottle 45
03562420	450 ML	6X450ML 16oz/28
03562433	200 ML	6X200ML 8oz/24
03562418	180 ML	6X180ML 8oz/24

Cap A

Cat. No: **033624**

THF/Ac2O 90:10

Standard pack:

03362402	2.5 L	4X2.5L G. Bottle 45
03362401	1 L	6X1L G. Bottle 45
03362420	450 ML	6X450ML 16oz/28
033624A2	200 ML	6X200ML 8oz/28
0336241C	180 ML	6X180ML 8oz/28

Cap A

Cat. No: **036124**

ACN/NMI 80:20

Standard pack:

03612455	45 L	1X45L Stain/st. Drum
03612430	25 L	1X25L Stain/st. Drum
03612402	2.5 L	4X2.5L G. Bottle 45
03612401	1 L	6X1L G. Bottle 45
03612435	500 ML	6X0.5L G. Bottle 32
0361243A	250 ML	6X250ML G. Bottle 45

Cap A mild 5%
Cat. No: 042824
THF/Pyr/Pac2O 85:10:5
Standard pack:

04282420	450 ML	6X450ML 16oz/28
04282433	200 ML	6X200ML 8oz/24

Cap A mild 10%
Cat. No: 036824
THF/Pyr/Pac2O 80:10:10
Standard pack:

03682420	450 ML	6X450ML 16oz/28
03682433	200 ML	6X200ML 8oz/24

Cap A mild 5%
Cat. No: 042724
THF/Pac2O 95:5
Standard pack:

04272420	450 ML	6X450ML 16oz/28
042724A2	200 ML	6X200ML 8oz/28
0427241C	180 ML	6X180ML 8oz/28

Cap A mild 10%
Cat. No: 036924
THF/Pac2O 90:10
Standard pack:

03692402	2.5 L	4X2.5L G. Bottle 45

Cap B 10%
Cat. No: 032424
THF/NMI 90:10
Standard pack:

03242402	2.5 L	4X2.5L G. Bottle 45
03242420	450 ML	6X450ML 16oz/28
03242433	200 ML	6X200ML 8oz/24
03242418	180 ML	6X180ML 8oz/24

Cap B 10%
Cat. No: 033524
THF/Pyr/NMI 80:10:10
Standard pack:

03352402	2.5 L	4X2.5L G. Bottle 45
03352401	1 L	6X1L G. Bottle 45
03352420	450 ML	6X450ML 16oz/28
033524A2	200 ML	6X200ML 8oz/28

Cap B 16%
Cat. No: 035724
THF/NMI 84:16
Standard pack:

03572404	4 L	4X4L G. Bottle 32
03572402	2.5 L	4X2.5L G. Bottle 45
03572401	1 L	6X1L G. Bottle 45
03572420	450 ML	6X450ML 16oz/28
03572433	200 ML	6X200ML 8oz/24
03572418	180 ML	6X180ML 8oz/24
0357243G	100 ML	6X100/250ML 24

Cap B kit
Cat. No: 036524
CAP B1 + CAP B2
Standard pack:

03652402	2.5 L	4X1.25/2.5L 45
03652401	1 L	6X0.5/1L G.Bottle 45
0365243A	125 ML	6X125/250ML 45

Cap B1
Cat. No: 037424
Ac2O/ACN 40:60
Standard pack:

03742455	45 L	1X45L Stain/st. Drum
03742430	25 L	1X25L Stain/st. Drum
03742402	2.5 L	4X2.5L G. Bottle 45
037424K1	1.25 L	4X1.25/2.5L 45
03742401	1 L	6X1L G. Bottle 45
03742444	500 ML	6X0.5/1L G.Bottle 45
037424G5	500 ML	6X0.5L G. Bottle 45
0374243B	125 ML	6X125/250ML 45

Cap B2
Cat. No: 037524
Lut/ACN 60:40
Standard pack:

03752455	45 L	1X45L Stain/st. Drum
03752430	25 L	1X25L Stain/st. Drum
03752402	2.5 L	4X2.5L G. Bottle 45
037524K1	1.25 L	4X1.25/2.5L 45
03752401	1 L	6X1L G. Bottle 45
03752444	500 ML	6X0.5/1L G.Bottle 45
037524G5	500 ML	6X0.5L G. Bottle 45
0375243B	125 ML	6X125/250ML 45

Deblock DCA 3% / DCE
Cat. No: 040424
3% DCA / DCE
Standard pack:

04042402	2.5 L	4X2.5L G. Bottle 45
04042401	1 L	6X1L G. Bottle 45
04042420	450 ML	6X450ML 16oz/28
040424A2	200 ML	6X200ML 8oz/28

Deblock DCA 2% / DCM
Cat. No: 044124
2% DCA / DCM
Standard pack:

04412402	2.5 L	4X2.5L G. Bottle 45
04412401	1 L	6X1L G. Bottle 45
04412420	450 ML	6X450ML 16oz/28
04412433	200 ML	6X200ML 8oz/24

Deblock DCA 3% / DCM
Cat. No: 043124
3% DCA / DCM
Standard pack:

04312402	2.5 L	4X2.5L G. Bottle 45
04312420	450 ML	6X450ML 16oz/28
0431243A	250 ML	6X250ML G. Bottle 45
0431243A	250 ML	6X250ML G. Bottle 45
04312433	200 ML	6X200ML 8oz/24

Deblock TCA 3% / DCE
Cat. No: 043324

3% TCA / DCE

Standard pack:

04332404	4 L	4X4L G. Bottle 32
04332402	2.5 L	4X2.5L G. Bottle 45
04332401	1 L	6X1L G. Bottle 45

Deblock TCA 2% / DCM
Cat. No: 043224

2% TCA / DCM

Standard pack:

04322402	2.5 L	4X2.5L G. Bottle 45
04322401	1 L	6X1L G. Bottle 45
04322420	450 ML	6X450ML 16oz/28
04322433	200 ML	6X200ML 8oz/24

Deblock TCA 3% / DCM
Cat. No: 041324

3% TCA / DCM

Standard pack:

041324P4	28 L	1X28L PE/Met. Drum
04132404	4 L	4X4L G. Bottle 32
04132402	2.5 L	4X2.5L G. Bottle 45
04132417	900 ML	6X1L G. Bottle 28
04132420	450 ML	6X450ML 16oz/28
04132433	200 ML	6X200ML 8oz/24
041324A2	200 ML	6X200ML 8oz/28

Deblock DCA 3% / Toluene
Cat. No: 273224

3% DCA / Toluene

Standard pack:

27322404	4 L	4X4L G. Bottle 32
27322402	2.5 L	4X2.5L G. Bottle 45
27322401	1 L	6X1L G. Bottle 45

Deblock DCA 5% / Toluene
Cat. No: 273324

5% DCA / Toluene

Standard pack:

27332401	1 L	6X1L G. Bottle 45

Deblock DCA 10% / Toluene
Cat. No: 275324

10% DCA / Toluene

Standard pack:

27532401	1 L	6X1L G. Bottle 45

Deblock TCA 3% / Toluene
Cat. No: 300624

3% TCA / Toluene

Standard pack:

30062402	2.5 L	4X2.5L G. Bottle 45
30062420	450 ML	6X450ML 16oz/28

Diethylamine 20% / Acetonitrile
Cat. No: 273424

DEA/ACN 20:80

Standard pack:

27342402	2.5 L	4X2.5L G. Bottle 45
27342401	1 L	6X1L G. Bottle 45

Oxidizer 0.02M
Cat. No: 150924
0.02M THF/Pyr/Water 89.6:0.4:10
Standard pack:

15092402	2.5 L	4X2.5L G. Bottle 45
15092420	450 ML	6X450ML 16oz/28
150924A2	200 ML	6X200ML 8oz/28

Oxidizer 0.02M
Cat. No: 151824
0.02M THF/Pyr/Water 70:10:20
Standard pack:

15182402	2.5 L	4X2.5L G. Bottle 45
15182401	1 L	6X1L G. Bottle 45
15182420	450 ML	6X450ML 16oz/28
151824A2	200 ML	6X200ML 8oz/28

Oxidizer 0.02M
Cat. No: 151024
0.02M THF/Pyr/Water 70:20:10
Standard pack:

15102404	4 L	4X4L G. Bottle 32
15102402	2.5 L	4X2.5L G. Bottle 45
15102401	1 L	6X1L G. Bottle 45
15102420	450 ML	6X450ML 16oz/28
15102433	200 ML	6X200ML 8oz/24

Oxidizer 0.05M
Cat. No: 150724
0.05M Pyr/Water 90:10
Standard pack:

15072402	2.5 L	4X2.5L G. Bottle 45
15072401	1 L	6X1L G. Bottle 45
1507243A	250 ML	6X250ML G. Bottle 45

Oxidizer 0.1M
Cat. No: 150624
0.1M THF/Pyr/Water 78:20:2
Standard pack:

15062402	2.5 L	4X2.5L G. Bottle 45
15062420	450 ML	6X450ML 16oz/28
15062433	200 ML	6X200ML 8oz/24

Oxidizer 0.1M
Cat. No: 151624
0.1M THF/Pyr/Water 70:10:20
Standard pack:

15162402	2.5 L	4X2.5L G. Bottle 45
15162433	200 ML	6X200ML 8oz/24

Oxidizer 0.118M
Cat. No: 152124
0.118M THF/Pyr/Water 76:22:2
Standard pack:

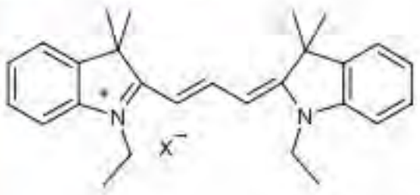
15212402	2.5 L	4X2.5L G. Bottle 45

DYES

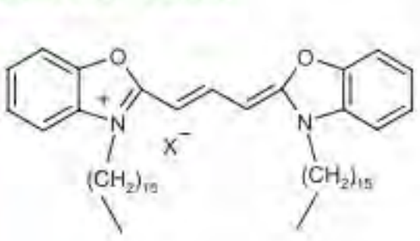
we offer a variety of Fluorescein derivatives, tri and penta Methine Cyanines, Oxonols and Styryls for absorption and fluorescence applications, such as: biomedical imaging, optical imaging techniques, chemical probes for investigating Cl-exchange system, as well as functionalized and ready for conjugation probes. These dyes cover a large spectral range, from the UV to NIR spectrum.

DYES

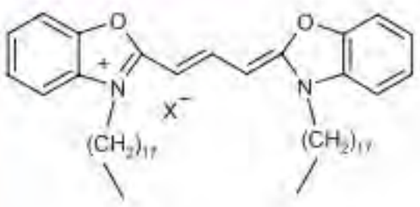
Cy(3) bis(Ind, N-ethyl)
Cat. No: 1407



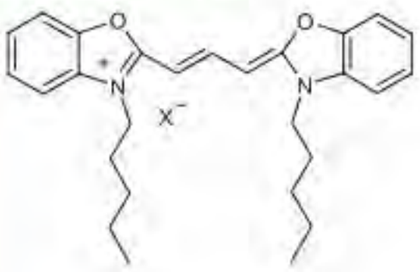
Cy(3) bis(Oxa, N-hexadecyl)
Cat. No: 1409



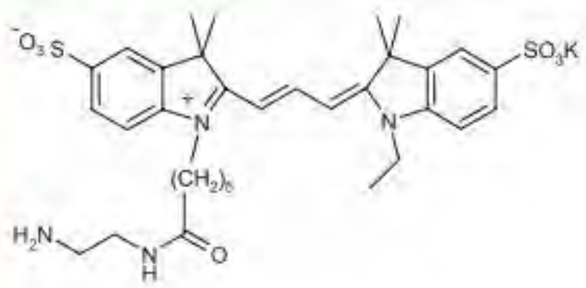
Cy(3) bis(Oxa, N-octadecyl)
Cat. No: 1408



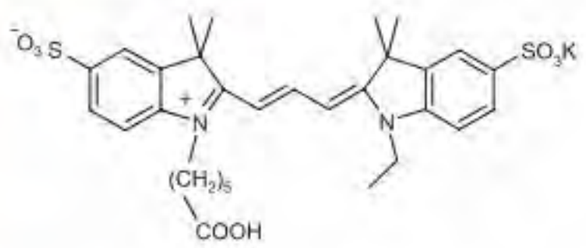
Cy(3) bis(Oxa, N-pentyl), diOC5(3)
Cat. No: 1412



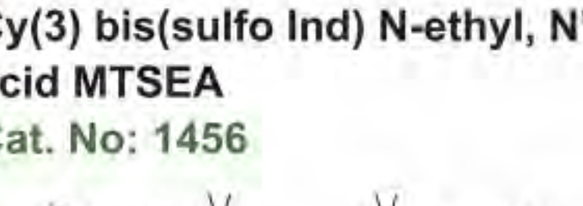
Cy(3) bis(sulfo Ind) N-ethyl, N'-ethylenediamine amide
Cat. No: 1418



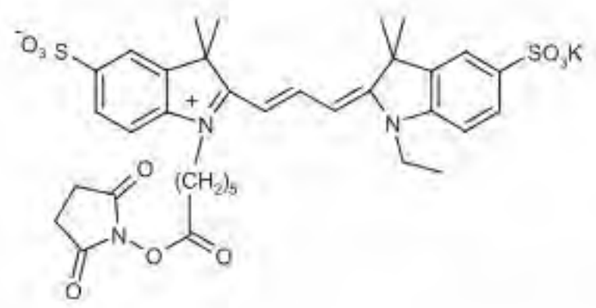
Cy(3) bis(sulfo Ind) N-ethyl, N'-hexanoic acid
Cat. No: 1416



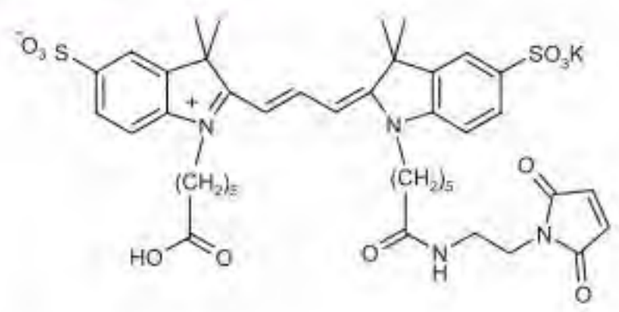
Cy(3) bis(sulfo Ind) N-ethyl, N'-hexanoic acid MTSEA
Cat. No: 1456



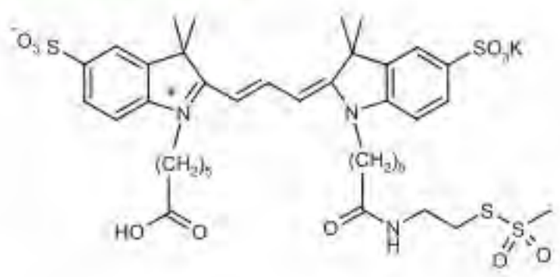
Cy(3) bis(sulfo Ind) N-ethyl, N'-hexanoic acid succinimidyl ester
Cat. No: 1454



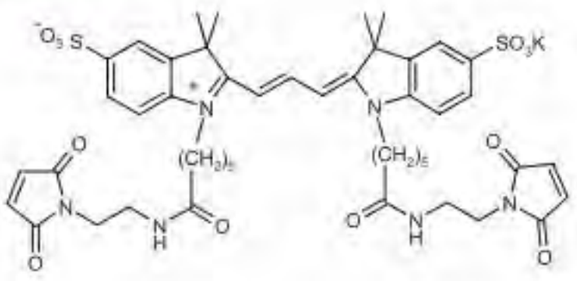
Cy(3) bis(sulfo ind) N-monohexanoic acid-maleimide
Cat. No: 1452



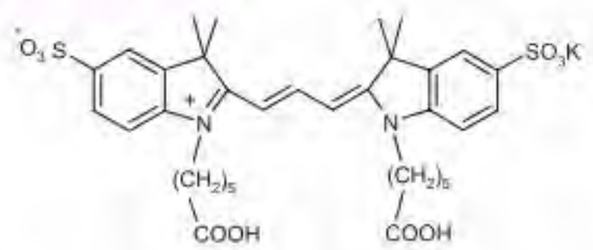
Cy(3) bis(sulfo Ind), N-monohexanoic acid MTSEA
Cat. No: 1453



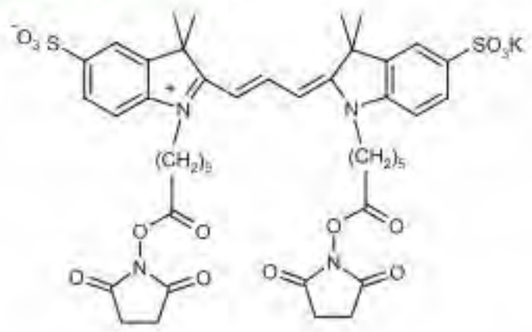
Cy(3) bis(sulfo Ind, N-hexanoic acid maleimide)
Cat. No: 1451



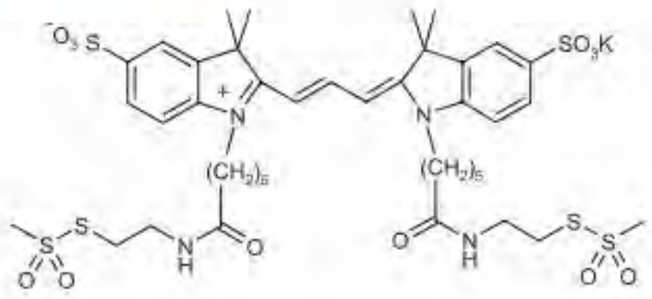
Cy(3) bis(sulfo Ind, N-hexanoic acid)
Cat. No: 1414



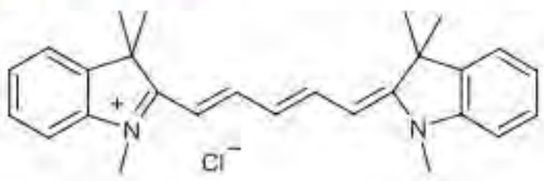
Cy(3) bis(sulfo Ind, N-hexanoic acid, succinimidyl ester)
Cat. No: 1447



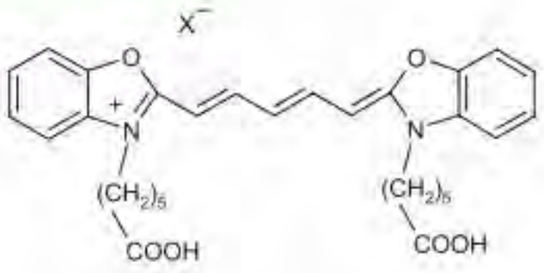
Cy(3) bis(sulfo Ind, N-hexanoic acid-MTSEA)
Cat. No: 1449



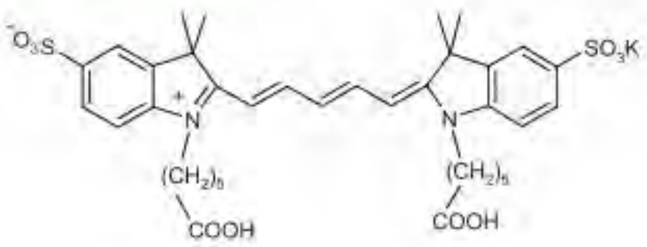
Cy(5) bis(Ind N-methyl), DiIC1(5)
Cat. No: 1411



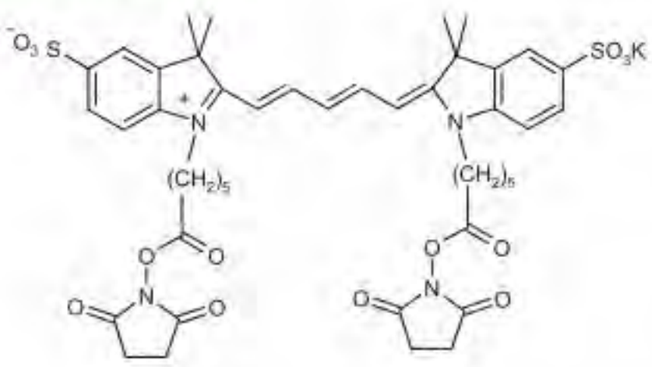
Cy(5) bis(Oxa N-hexanoic acid)
Cat. No: 1445



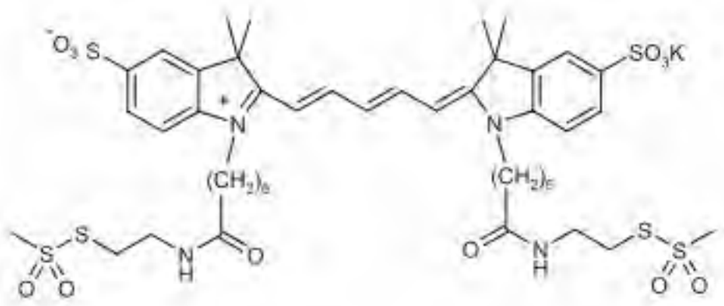
Cy(5) bis(sulfo Ind N-hexanoic acid)
Cat. No: 1415



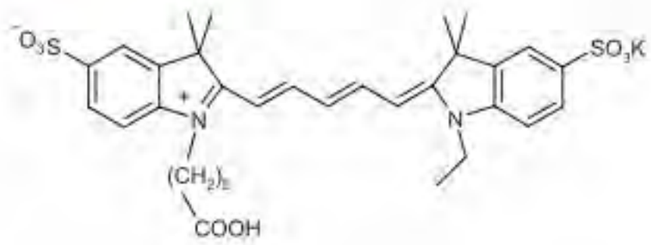
Cy(5) bis(sulfo Ind N-hexanoic acid, succinimidyl ester)
Cat. No: 1448



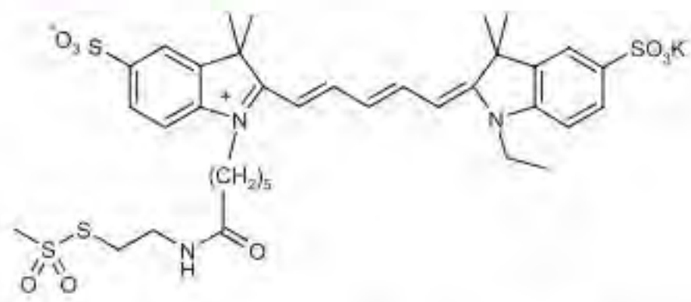
Cy(5) bis(sulfo Ind N-hexanoic acid-MTSEA)
Cat. No: 1450



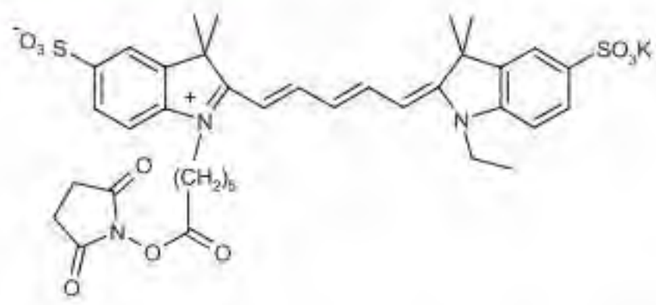
Cy(5) bis(sulfo Ind) N-ethyl, N'-hexanoic acid
Cat. No: 1417



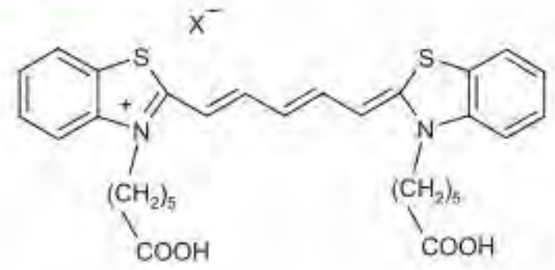
Cy(5) bis(sulfo Ind) N-ethyl, N'-hexanoic acid MTSEA
Cat. No: 1457



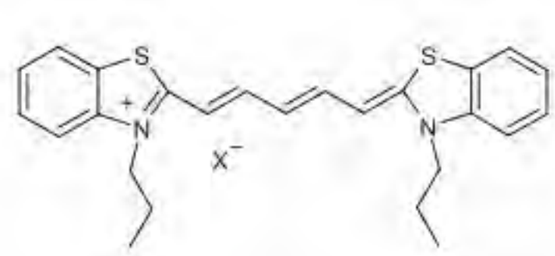
Cy(5) bis(sulfo Ind) N-ethyl, N'-hexanoic acid succinimidyl ester
Cat. No: 1455



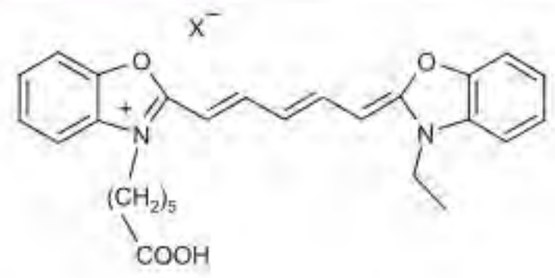
Cy(5) bis(Thia N-hexanoic acid)
Cat. No: 1419



Cy(5) bis(Thia N-propyl), diSC3(5)
Cat. No: 1413

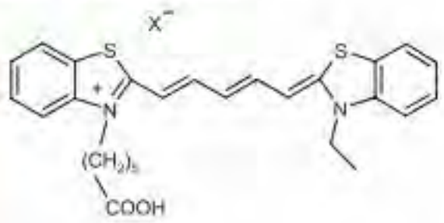


Cy(5) Oxa N-ethyl, N'-hexanoic acid
Cat. No: 1446

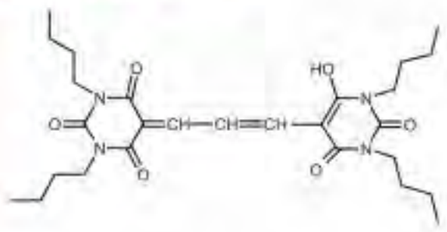


DYES

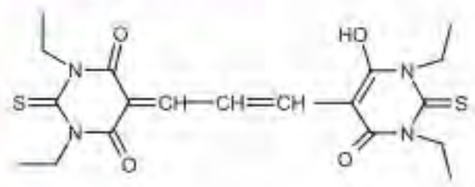
Cy(5) Thia N-ethyl, N'-hexanoic acid
Cat. No: 1444



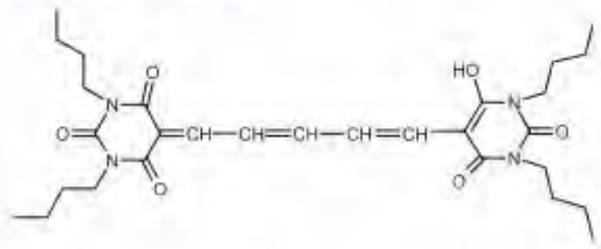
Oxonol (3) bis(dibutyl BA),[DiBAC4(3)]
Cat. No: 1442



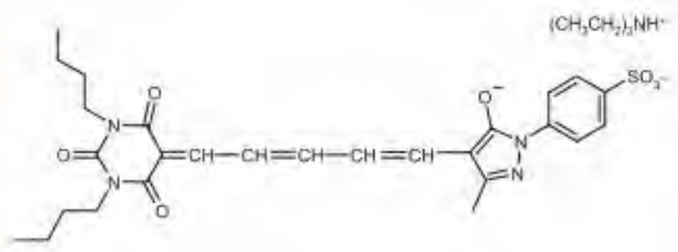
Oxonol (3) bis(diethyl) TBA, [DiSBAC2(3)]
Cat. No: 1425



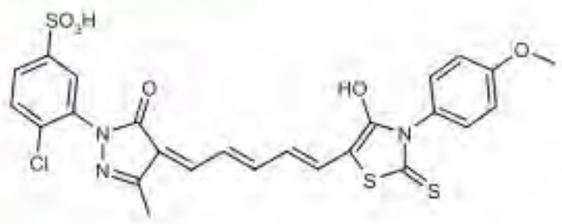
Oxonol (5) bis(dibutyl)BA, [DiBAC4(5)]
Cat. No: 1426



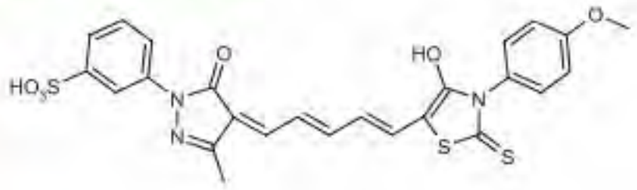
Oxonol (5) dibutylBA, sulfophenyl methyl pyrazolone (ww 781)
Cat. No: 1436



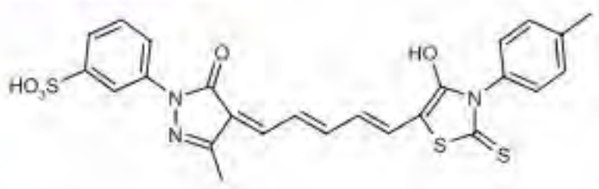
Oxonol RH-1691
Cat. No: 4563



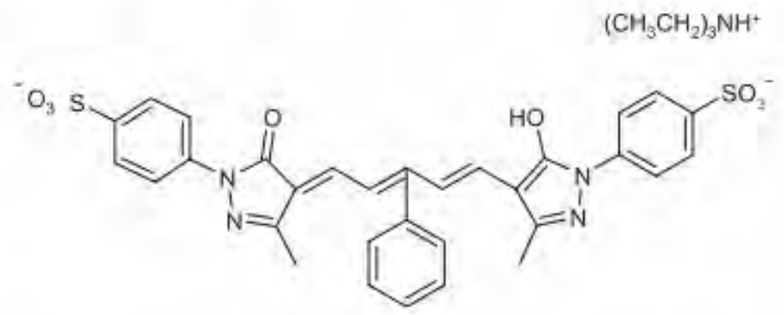
Oxonol RH-1692
Cat. No: 4564



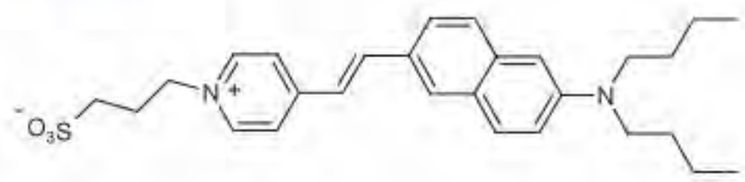
Oxonol RH-1838
Cat. No: 4565



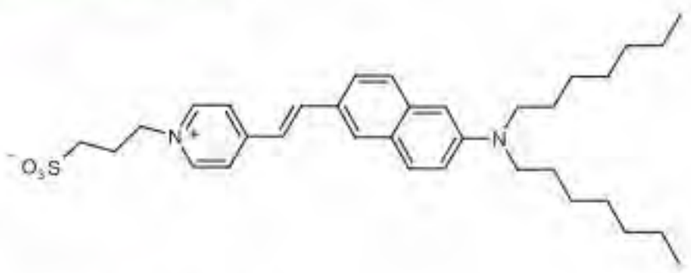
Oxonol, RH-155 triethylammonium salt
Cat. No: 1435



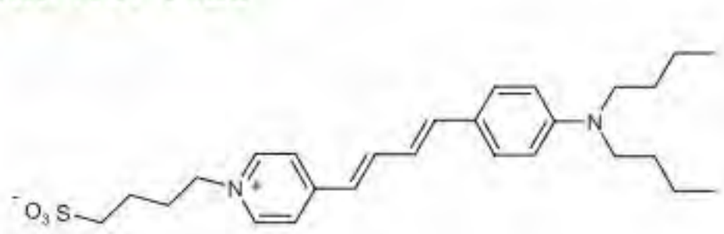
Styryl, Di-4-ANEPPS
Cat. No: 1422



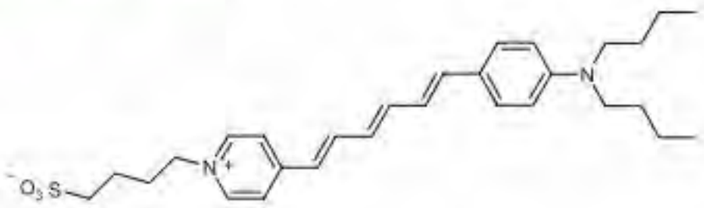
Styryl, Di-8-ANEPPS
Cat. No: 1423



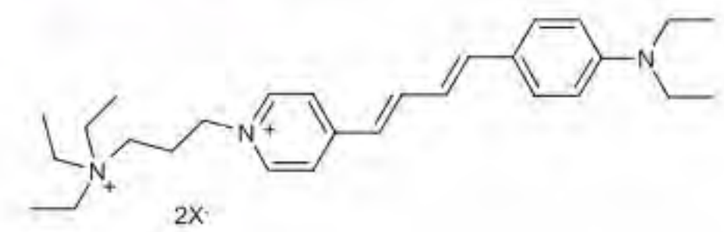
Styryl, RH-160
Cat. No: 1428



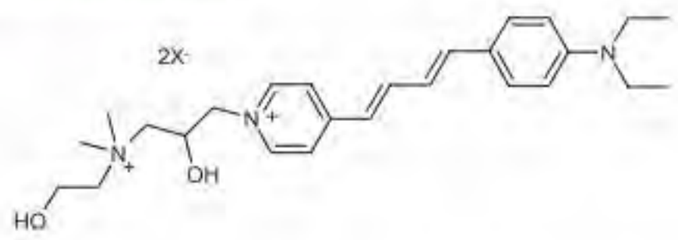
Styryl, RH-237
Cat. No: 1429



Styryl, RH-414
Cat. No: 1438



Styryl, RH-795
Cat. No: 1434



MOLECULAR BIOLOGY

BIOSOLVE produce and distribute quality products for Molecular Biology & Electrophoresis.

Our products are quality tested to ensure:

- The highest level of purity,
- The lowest level of metal content,
- The lowest absorbance values, and
- The absence of DNase, RNase & Proteases activity.

Our product portfolio includes:

- Biophenol™ solutions: water saturated highly purified and stable solutions, also available as kits which enable the customer to choose the pH conditions of the separation media.
- Acrylamide formulations: including stable ready-mix solutions for sequencing gels. Formulations of Acrylamide containing Piperazine type linkers displaying very low backgrounds are also available.
- Buffer solutions: we offer ready-made high quality buffers at various concentrations and pH, conveniently packaged in a 1L, 2.5L and 4L volumes.
- We are also the prime producers of many reagents for Molecular Biology, such as: DTT, IPTG, SDS, Tris and may offer from kilogram to bulk scale quantities.

Aces free acid

Synonym: *N-(2-Acetamido)-2-aminoethanesulfonic acid, N-(Carbamoylmethyl)-2-aminoethanesulfonic acid, N-(Carbamoylmethyl)taurine*

CAS [7365-82-4]; EC 230-908-4; $C_4H_{10}N_2O_4S$; M 182.19 ; m.p 270-295 °C

Cat. No. 010223

Aces free acid

Molecular biology

Application: ACES is a buffering substance useful at pH range 6.1 - 7.5. pKa = 6.78 at 25°C. Commonly used as an elution buffer in the chromatographic purification of proteins.

Solubility (2% in Water)	**Clear colorless solution**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	RNase activity	**Not detected**
Assay (T)	**min. 99%w/w**	Protease activity	**Not detected**
A260nm (2%)	**max. 0.05AU**		

Acrylamide 4X

Synonym: *2-Propenamide, Acrylic acid amide*

CAS [79-06-1]; EC 201-173-7; C_3H_5NO; M 71.08

m.p. 83 - 85 °C; b.p. 125 °C at 25mmHg; UN 2074,6.1,III,T2;

Danger H:301-312-315-317-319-332-340-350-372-361f; P:260-301+310-305+351+338-321-405

Cat. No. 014680

Acrylamide 4X

For synthesis

Appearance	**White crystalline powder**	Solubility (50% in Water)	**Clear colorless solution**
Assay Acrylamide (on dry basis)	**min. 99.9%**	Water insolubles	**max. 0.005%**
Acrylic acid	**max. 0.001%**	pH (5% in water)	**5.0-6.5**

Cat. No. 014623

Acrylamide 4X

Molecular biology

Appearance	**White crystalline powder**	Residual Methanol (GC)	**max. 0.5%**
Conductivity (40% in water)	**max. 5µS/cm**	A290nm (1%)	**max. 0.1AU**
Assay Acrylamide (on dry basis)	**min. 99.5%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	RNase activity	**Not detected**
Acrylic acid	**max. 0.003%**	Protease activity	**Not detected**

Acrylamide 4X, 40%

Synonym: *2-Propenamide, Acrylic acid amide*

CAS [79-06-1]; EC 201-173-7; C_3H_5NO ; M 71.08

Danger H:301-312-315-317-319-340-350-372-361f; P:260-301+310-305+351+338-321-405

Cat. No. 013123

Acrylamide 4X, 40%

Molecular biology

Appearance	**Clear colorless liquid**	Acrylic acid	**max. 0.001%**
Conductivity (40% in water)	**max. 5µS/cm**	A290nm (1%)	**max. 0.1AU**
Assay Acrylamide (on dry basis)	**min. 99.5%**	DNase activity	**Not detected**
Assay (content)	**39-41%w/v**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0002%**	Protease activity	**Not detected**

Acrylamide/1,4-Bis(acryloyl)piperazine 37.5:1, 30%

D 1.05; UN 2810,6.1,III,T1;

Danger H:302-312-315-317-319-340-350-361-372; P:260-261-305+351+338-321

Cat. No. 014523

Acrylamide/1,4-Bis(acryloyl)piperazine 37.5:1, 30%

Molecular biology

Appearance	**Clear colorless liquid**	Composition	**Complies**
Conductivity (at bottling)	**max. 25µS/cm**	DNase activity	**Not detected**
Assay (content)	**28.5-31.5%w/v**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
Polymerization time	**max. 30min.**		
Acrylic acid	**max. 0.001%**		

Filtered through 1um, filled under inert gas.

Acrylamide/Bis-Acrylamide 19:1, 40%

D 1.035; UN 2810,6.1,III,T1;

Danger H:302-312-315-317-319-340-350-361-372; P:260-261-305+351+338-321

Cat. No. 013523

Acrylamide/Bis-Acrylamide 19:1, 40%

Molecular biology

Application: Commonly used for DNA sequencing and separation of low-molecular-weight proteins.

Appearance	**Clear colorless liquid**	A290nm (1%)	**max. 0.1AU**
Conductivity (40% in water)	**max. 5µS/cm**	DNase activity	**Not detected**
Assay (content)	**39-41%w/v**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0002%**	Protease activity	**Not detected**
Polymerization time	**max. 30min.**		
Acrylic acid	**max. 0.001%**		
Composition	**Complies**		

Filtered through 1µm, filled under inert gas.

Acrylamide/Bis-Acrylamide 29:1, 40%

D 1.035; UN 2810,6.1,III,T1;

Danger H:302-312-315-317-319-340-350-361-372; P:260-261-305+351+338-321

Cat. No. 013823

Acrylamide/Bis-Acrylamide 29:1, 40%

Molecular biology

Application: Commonly used for DNA sequencing and separation of proteins by electrophoresis.

Appearance	**Clear colorless liquid**	A290nm (1%)	**max. 0.1AU**
Conductivity (40% in water)	**max. 5µS/cm**	DNase activity	**Not detected**
Assay (content)	**39-41%w/v**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0002%**	Protease activity	**Not detected**
Polymerization time	**max. 30min.**		
Acrylic acid	**max. 0.001%**		
Composition	**Complies**		

Acrylamide/Bis-Acrylamide 37.5:1, 30%

D 1.02; UN 2810,6.1,III,T1;

Danger H:302-312-315-317-319-340-350-372-361f; P:260-261-305+351+338-321-405

Cat. No. 015223

Acrylamide/Bis-Acrylamide 37.5:1, 30%

Molecular biology

Application: Commonly used for separation of high-molecular-weight proteins.

Appearance	**Clear colorless liquid**	A290nm (1%)	**max. 0.1AU**
Conductivity (at bottling)	**max. 3µS/cm**	DNase activity	**Not detected**
Assay (content)	**29-31%w/v**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0002%**	Protease activity	**Not detected**
Polymerization time	**max. 30min.**		
Acrylic acid	**max. 0.001%**		
Composition	**Complies**		

Filtered through 1µm, filled under inert gas.

Acrylamide/Bis-Acrylamide 37.5:1, 40%

D 1.035; UN 2810,6.1,III,T1;

Danger H:302-312-315-317-319-340-350-372-361f; P:260-261-305+351+338-321

Cat. No. 014223

Acrylamide/Bis-Acrylamide 37.5:1, 40%

Molecular biology

Application: Commonly used for separation of high-molecular-weight proteins.

Appearance	**Clear colorless liquid**	A290nm (1%)	**max. 0.1AU**
Conductivity (40% in water)	**max. 5µS/cm**	DNase activity	**Not detected**
Assay (content)	**39-41%w/v**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0002%**	Protease activity	**Not detected**
Polymerization time	**max. 30min.**		
Acrylic acid	**max. 0.001%**		
Composition	**Complies**		

Filtered through 1um, filled under inert gas.

Agarose I

CAS [9012-36-6]; EC 232-731-8;

Cat. No. 017123

Agarose I

Molecular biology

Electroendosmosis (-MR)	**0.08-0.14**	Sulfate (SO_4)	**max. 0.09%**
Gel strength (1.5% gel.)	**2200-4000gr/cm^2**	DNase activity	**Not detected**
Gelling temperature (1.5% sol)	**34-37°C**	RNase activity	**Not detected**
Melting temperature (1.5% sol)	**max. 92°C**	Protease activity	**Not detected**
Loss on drying (105°C)	**max. 10%**	Residue after ignition	**max. 1%**

Agarose II

CAS [9012-36-6]; EC 232-731-8;

Cat. No. 017223

Agarose II

Molecular biology

Gelling temperature (4% sol.)	**31-39°C**	Sulfate (SO_4)	**max. 0.15%**
Gel strength (4% gel)	**1200-2500gr/cm^2**	Residue after ignition	**max. 1%**
Electroendosmosis (-MR)	**0.06-0.14**	DNase activity	**Not detected**
Melting temperature (4% sol.)	**max. 92°C**	RNase activity	**Not detected**
Loss on drying (105°C)	**max. 10%**	Protease activity	**Not detected**

Agarose III

CAS [9012-36-6]; EC 232-731-8;

Cat. No. 017323

Agarose III

Molecular biology

Gel strength (1% Gel.)	**200-400gr/cm^2**	Sulfate (SO_4)	**max. 0.1%**
Electroendosmosis (-MR)	**0.05-0.14**	Residue after ignition	**max. 1%**
Gelling temperature (1.5% sol)	**max. 31°C**	DNase activity	**Not detected**
Melting temperature (1.5% sol)	**max. 66°C**	RNase activity	**Not detected**
Loss on drying (105°C)	**max. 10%**	Protease activity	**Not detected**

Iso-Amyl alcohol according to Gerber

D 0.81; UN 1105,3,III,F1;

Warning; H:226-302; P:210-240-241-280-303+361+353

Cat. No. 090523

Iso-Amyl alcohol according to Gerber

Molecular biology

Appearance	**Clear liquid**	Organic Impurities	**Passes test**
Color (APHA)	**max. 15**	2-Furaldehyde	**Passes test**
2-Methyl-1-Butanol	**8-10%**	Water (KF)	**max. 0.2%w/w**
3-Methyl-1-Butanol	**90-92%**	Residue after evaporation	**max. 0.005%w/w**
Assay (Total Isomers)	**min. 98%**	Density (20/4°C)	**0.808-0.818gr/ml**

BCIP®, p-Toluidine salt

Synonym: 5-Bromo-4-chloro-3-indolyl phosphate p-toluidine salt

CAS [6578-06-9]; EC 229-506-1; $C_8H_6BrClNO_4PC_7H_9N$; M 433.64

Warning; H:302-312-332; P:261-280-301+312-304+340-322

Specification continues on the next page

Cat. No. 023123

BCIP®, p-Toluidine salt

Molecular biology

Application: Commonly used in the colorimetric detection of Alkaline Phosphatase in conjunction with Nitro Blue Tetrazolium (NBT). The BCIP/NBT substrate system is also suitable for use in immunohistochemistry, immunoblot staining, and ELISA applications

Solubility (2% in DMF)	**Clear colorless solution**	RNase activity	**Not detected**
Assay (UV)	**min. 99%**	Protease activity	**Not detected**
DNase activity	**Not detected**		

BES free Acid

Synonym: *N,N-Bis(2-hydroxyethyl)-2-aminoethanesulfonic acid, N,N-Bis(2-hydroxyethyl)tauri*

CAS [10191-18-1]; EC 233-465-5; $C_6H_{15}NO_5S$; M 213.25

Warning; H:315-319-335; P:261-280-305+351+338-321

Cat. No. 023223

BES free Acid

Molecular biology

Application: Commonly used for preparation of buffered saline for transfection of DNA into mammalian cells. pKa=7.1 at 25°C; useful pH range 6.4 - 7.8.

Appearance	**White powder**	A260nm (10%)	**max. 0.1AU**
Solubility (10% in Water)	**Clear colorless solution**	A280nm (10%)	**max. 0.1AU**
Loss on drying (105°C)	**max. 0.5%**	DNase activity	**Not detected**
pH (10% in Water)	**3.5-5**	RNase activity	**Not detected**
Assay (T)	**min. 99%w/w**	Protease activity	**Not detected**

Bicine

Synonym: *N,N-Bis(2-hydroxyethyl)glycine*

CAS [150-25-4]; EC 205-755-1; $C_6H_{13}NO_4$; M 163.17

Cat. No. 023323

Bicine

Molecular biology

Application: Commonly used as buffering substance useful at pH range 7.6 - 9.0, pKa = 8.26 at 25°C.

Appearance	**White powder**	A260nm (1M)	**max. 0.1AU**
Solubility (1M in water)	**Clear colorless solution**	A280nm (1M)	**max. 0.1AU**
Loss on drying (105°C)	**max. 0.5%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
pH (1M in water)	**3.5-5**	Protease activity	**Not detected**
Assay (T)	**min. 98.5%w/w**		

Biophenol/Chloroform/Isoamyl alcohol, 25:24:1, 3-Part kit

Composition: *Part A - Biophenol / Chloroform / Isoamyl alcohol, 25:24:1; Part B- TE Buffer 0.5M; Part C - Hydroxyquinoline stabilizer.*

CAS [136112-00-0]; D 1.28; UN 2810,6.1,III,T1;

Danger H:225-302-311-314-331-341-351-373; P:103-303+361+353-305+351+338-310-361-405

Cat. No. 168823

Biophenol/Chloroform/Isoamyl alcohol, 25:24:1, 3-Part kit

Molecular biology

Application: This mixture is commonly used for extracting protein from crude nucleic acid preparations.

Appearance - Part A	**Clear colorless liquid**	Purity of Isoamylalcohol	**min. 99%**
Color (APHA) - Part A	**max. 10**	Appearance - Part B	**Clear colorless liquid**
Composition (GC) - Part A	**Complies**	Purity of H. Quinoline - Part C	**min. 99%**
Iron (Fe) - Part A	**max. 0.0001%**	pH of reconstitute kit (25°C)	**7.8-8.2**
Heavy metals (as Pb) - Part A	**max. 0.0001%**	DNase activity	**Not detected**
Purity of Biophenol	**min. 99.8%**	RNase activity	**Not detected**
Purity of Chloroform	**min. 99.9%**	Protease activity	**Not detected**

Biophenol/Chloroform/Isoamyl alcohol, 25:24:1, 2-Part kit, unstabilized

CAS [136112-00-0]; D 1.28; UN 1992,3+6.1,II,FT1;

Danger H:225-302-311-314-331-341-351-373; P:303+361+353-305+351+338-310-361

Cat. No. 169823

Biophenol/Chloroform/Isoamyl alcohol, 25:24:1, 2-Part kit, unstabilized

Molecular biology

Application: This mixture is commonly used for extracting protein from crude nucleic acid preparations.

Appearance - Part A	**Clear solution**	Purity of Isoamylalcohol	**min. 99%**
Composition (GC) - Part A	**Complies**	Appearance - Part B	**Clear solution**
Iron (Fe) - Part A	**max. 0.0001%**	pH of reconstitute kit (25°C)	**7.8-8.2**
Heavy metals (as Pb) - Part A	**max. 0.0001%**	DNase activity	**Not detected**
Purity of Biophenol	**min. 99.8%**	RNase activity	**Not detected**
Purity of Chloroform	**min. 99.9%**	Protease activity	**Not detected**

Biophenol/Chloroform/Isoamyl alcohol, 25:24:1, stabilized

CAS [136112-00-0]; D 1.28; UN 2810,6.1,II,T1;

Danger H:225-302-311-314-331-341-350-373; P:103-303+361+353-305+351+338-310-361-405

Cat. No. 169723

Biophenol/Chloroform/Isoamyl alcohol, 25:24:1, stabilized

Molecular biology

Application: This mixture is commonly used for extracting protein from crude nucleic acid preparations.

Appearance	**Clear liquid**	Purity of Biophenol	**min. 99.8%**
Iron (Fe)	**max. 0.0001%**	Purity of Chloroform	**min. 99.9%**
Heavy metals (as Pb)	**max. 0.0001%**	Purity of Isoamylalcohol	**min. 99%**
pH	**7.8-8.2**	DNase activity	**Not detected**
Stabilizer (Hydroxyquinoline)	**0.08-0.12%**	RNase activity	**Not detected**
Solvent composition	**Complies**	Protease activity	**Not detected**

Biophenol saturated, Tris buffered pH 8, stabilized

CAS [108-95-2]; EC 203-632-7; C_6H_6O; M 94.1

Danger H:302-312-314-331-341-373; P:260-303+361+353-305+351+338-310-405

Cat. No. 169123

Biophenol saturated, Tris buffered pH 8, stabilized

Molecular biology

Application: Commonly used For DNA extractions needing high pH.

Appearance	**Clear liquid**	Water (KF)	**25-32%w/v**
Iron (Fe)	**max. 0.0001%**	Purity of Biophenol	**min. 99.8%**
Heavy metals (as Pb)	**max. 0.0001%**	DNase activity	**Not detected**
pH	**7.8-8.2**	RNase activity	**Not detected**
Stabilizer (Hydroxyquinoline)	**0.08-0.12%**	Protease activity	**Not detected**

Biophenol/Tris saturated, 3-parts kit

Composition: *Part A - Biophenol / Tris pH=6.4-6.8; Part B- TE Buffer 1.0M; Part C - Hydroxyquinoline stabilizer.*

CAS [108-95-2]; EC 203-632-7; C_6H_6O; M 94.1

Danger H:302-312-314-331-341-373; P:260-303+361+353-305+351+338-310-405

Cat. No. 168723

Biophenol/Tris saturated, 3-parts kit

Molecular biology

Color (APHA) - Part A	**max. 10**	Purity of H. Quinoline - Part C	**min. 99%**
Appearance - Part A	**Clear colorless liquid**	pH of reconstitute kit (25°C)	**7.8-8.2**
Iron (Fe) - Part A	**max. 0.0001%**	DNase activity	**Not detected**
Heavy metals (as Pb) - Part A	**max. 0.0001%**	RNase activity	**Not detected**
Purity of Biophenol	**min. 99.8%**	Protease activity	**Not detected**
Appearance - Part B	**Clear colorless liquid**		

Biophenol/Tris saturated, 2-part kit

Composition: *Part A - Biophenol / Tris pH=6.4-6.8; Part B- TE Buffer 1.0M.*

CAS [108-95-2]; EC 203-632-7; C_6H_6O; M 94.1

Danger H:302-312-314-331-341-373; P:260-303+361+353-305+351+338-310-405

Cat. No. 169223

Biophenol/Tris saturated, 2-part kit

Molecular biology

Appearance - Part A	**Clear colorless liquid**	pH of reconstitute kit (25°C)	**7.8-8.2**
Iron (Fe) - Part A	**max. 0.0001%**	DNase activity	**Not detecte**
Heavy metals (as Pb) - Part A	**max. 0.0001%**	RNase activity	**Not detecte**
Purity of Biophenol	**min. 99.8%**	Protease activity	**Not detecte**
Appearance - Part B	**Clear colorless liquid**		

Biophenol water saturated

Synonym: *Phenol, Hydroxybenzene*

CAS [108-95-2]; EC 203-632-7; C_6H_6O; M 94.041

Danger H:302-312-314-331-341-373; P:260-303+361+353-305+351+338-310-405

Cat. No. 169623

Biophenol water saturated

Molecular biology

Appearance	**Clear colorless liquid**	Purity of Biophenol	**min. 99.8%**
Iron (Fe)	**max. 0.0001%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0001%**	RNase activity	**Not detected**
Water (KF)	**25-32%w/v**	Protease activity	**Not detected**

BIO TRI RNA

D 1.06; UN 2810,6.1,II,T1;

Danger H:302-312-314-331-341-373; EUH:032; P:260-303+361+353-305+351+338-310-405

Cat. No. 901023

BIO TRI RNA

Molecular biology

Appearance	**Clear red solution**	RNA quality: OD 260/280	**1.8-2.1**
pH	**4.3-4.7**	RNA quality: OD 260/230	**0.7-3.3**
Density (20/4°C)	**1.05-1.07gr/ml**	RealTime PCR (GAPDH/HPRT1)	**Passes test**
RNA extraction quantity (cell-line)	**2-200Microgram**		

BIS-TRIS

Synonym: *2,2-Bis(hydroxymethyl)-2,2',2'-nitrilotriethanol, 2-Bis(2-hydroxyethyl)amino-2-(ymethyl) -1,3-propanediol, Bis(2-hydroxyethyl)amino-tris(hydroxymethyl)methane*

CAS [6976-37-0]; EC 230-237-7; $C_8H_{19}NO_5$; M 209.24

Warning; H:315-319-335; P:261-280-305+351+338-321-405

Cat. No. 203223

BIS-TRIS

Molecular biology

Application: Commonly used as buffering substance useful at pH range 5.8 - 7.2, pKa = 6.50 at 25°C.

Appearance	**White powder**	Assay (T)	**min. 99%w/w**
Solubility (1M in water)	**Clear colorless solution**	A280nm (1M)	**max. 0.4AU**
Chloride (Cl)	**max. 0.005%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.0005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
pH (1M in water)	**9.5-11**		

Boric Acid

CAS [10043-35-3]; EC 233-139-2; H_3BO_3; M 61.83; m.p 169 °C

Danger H:360FD; P:281-308+313

Cat. No. 020123 ***Boric Acid*** ***Molecular biology***

Appearance	**White solid**	A280nm (0.1M)	**max. 0.02AU**
Iron (Fe)	**max. 0.001%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
pH (3.3 % in water)	**3.8-4.8**	Protease activity	**Not detected**
Assay (T, dry)	**99.5-100.5%w/w**		
A260nm (0.1M)	**max. 0.02AU**		

Calcium chloride dihydrate

CAS [10035-04-8]; EC 233-140-8; $CaCl_2 x 2H_2O$; M 147.01 ; m.p 175 °C

Warning; H:319; P:264-280-305+351+338-337+313

Cat. No. 034223 ***Calcium chloride dihydrate*** ***Molecular biology***

Appearance	**White powder**	pH (5% in water)	**4.5-8.5**
Assay (on dry basis)	**98-102%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.001%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**

Caps free acid

Synonym: *3-(Cyclohexylamino)-1-propanesulfonic acid*

CAS [1135-40-6]; EC 214-492-1; $C_9H_{19}NO_3S$; M 221.31

Cat. No. 035023 ***Caps free acid*** ***Molecular biology***

Application: Commonly used as buffering substance useful at pH range 9.7-11.1

Appearance	**White to off white powder**	A280nm (0.05M)	**max. 0.02AU**
Solubility (10% in Water)	**Clear colorless solution**	DNase activity	**Not detected**
Assay (T)	**98-102%w/w**	RNase activity	**Not detected**
A260nm (0.05M)	**max. 0.02AU**	Protease activity	**Not detected**

Capso free acid

Synonym: *3-(Cyclohexylamino)-2-hydroxy-1-propanesulfonic acid,*

CAS [73463-39-5]; $C_9H_{19}NO_4S$; M 237.32; m.p. 270-274°C.

Cat. No. 035123

Capso free acid

Molecular biology

Application: Commonly used as buffering substance useful at pH range 8.9-10.3.

Appearance	**White to off white powder**	Assay (T)	**min. 98%w/w**
Solubility (0.1M in water)	**Clear colorless solution**	DNase activity	**Not detected**
Loss on drying (105°C)	**max. 2%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0015%**	Protease activity	**Not detected**
pH (0.1M in water)	**11-12**		

CHAPS

Synonym: *3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate*

CAS [75621-03-3]; $C_{32}H_{58}N_2O_7S$; M 614.89; m.p. 157 °C

Danger H:315-319-335-360D; P:261-280-305+351+338-321-405

Cat. No. 035223

CHAPS

Molecular biology

Appearance	**White to off white powder**	Loss on drying (105°C)	**max. 2.0%**
Assay (T)	**98.0-102.0%w/w**	Conductivity (0.1M in Water)	**max. 10uS/cm**
Solubility (10% in Water)	**Clear colorless solution**		

Chloroform / Isoamyl alcohol 24:1

D 1.45; UN 2810,6.1,III,T1;

Warning; H:302-315-351-373; P:260-280-281-405

Cat. No. 030723

Chloroform / Isoamyl alcohol 24:1

Molecular biology

Application: Suitable for nucleic acid purification

Appearance	**Clear solution**	DNase activity	**Not detected**
Purity of Isoamyl alcohol	**min. 99%**	RNase activity	**Not detected**
Purity of Chloroform	**min. 99.9%**	Protease activity	**Not detected**
Solvent Comp. by GC	**Complies**		

Citric acid anhydrous

CAS [77-92-9]; EC 201-069-1; $C_6H_8O_7$; M 192.13; m.p 153 - 154.5 °C

Warning; H:319; P:264-280-305+351+338-337+313

Cat. No. 030223

Citric acid anhydrous

Molecular biology

Application: Useful buffering substance, pKa_1 =3.13; pKa_2=4.76; pKa_3 =6.40 at 25°C. Suitable for use in tissue culture systems requiring additives.

Chloride (Cl)	**max. 0.001%**	Water (KF)	**max. 0.5%w/w**
Subs. darkened by Sulfuric Acid	**Passes test**	DNase activity	**Not detected**
Oxalate (C2O4)	**max. 0.05%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	Protease activity	**Not detected**
Assay (T)	**min. 99.5%w/w**		

Dextran sulfate sodium salt

CAS [9011-18-1]; M ~500KD;

Cat. No. 044423

Dextran sulfate sodium salt

Molecular biology

Application: Commonly used as accelerator of the hybridization rate of DNA or RNA bound to membranes, may be used in Southern and Northern blotting procedures.

Appearance	**Almost white powder**	pH (1% in water)	**5.0-7.2**
Chloride (Cl)	**max. 0.1%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.001%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.005%**	Protease activity	**Not detected**

1,4-Dithioerythritol

Synonym: erythro-1,4-Dimercapto-2,3-butanediol, erythro-2,3-Dihydroxy-1,4-butanedithiol,Cleland's reagent, . DTE

CAS [6892-68-8]; $C_4H_{10}O_2S_2$; M 154.3; m.p. 82-85°C

Warning; H:315-319-335; P:261-280-305+351+338-321-405

Cat. No. 044523

1,4-Dithioerythritol

Molecular biology

Appearance	**White to off-white solid**	A280nm (0.1M)	**max. 0.1AU**
Assay	**99-101%w/w**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
A260nm (0.1M)	**max. 0.5AU**	Protease activity	**Not detected**

D,L-Dithiothreitol

Synonym: *threo-1,4-Dimercapto-2,3-butanediol, Cleland's reagent, DTT*

CAS [3483-12-3]; EC 222-468-7; $C_4H_{10}O_2S_2$; M 154.24

Warning; H:302-315-319; P:280-301+312-305+351+338-321-362

Cat. No. 044823

D,L-Dithiothreitol

Molecular biology

Application: Antioxidant, used in low concentrations to stabilize enzymes during protein purification and enzymatic reactions. At high concentration, it reduces disulphide bridges present in polypeptides and facilitate protein denaturation by detergentor chaotropic agents.

Appearance	**White powder**	Melting point	**39-44°C**
Assay	**99-101%w/w**	Solubility (5% in Water)	**Clear colorless**
Heavy metals (as Pb)	**max. 0.0005%**	DNase activity	**Not detected**
Oxidized DTT	**max. 0.5%**	RNase activity	**Not detected**
A260nm (1%)	**max. 0.5AU**	Protease activity	**Not detected**
A280nm (1%)	**max. 0.1AU**		

DNase remover spray

Cat. No. 048323

DNase remover spray

Molecular biology

Appearance of solution	**Clear foamy liquid**	RNase activity	**Not detected**
Performance of spray	**Passes test**	Protease activity	**Not detected**
Composition	**Complies**		
DNase activity	**Not detected**		

EDTA Disodium salt dihydrate

Synonym: *Ethylenediaminetetraacetic acid disodium salt dihydrate; Edetate disodium.*

CAS [6381-92-6]; EC 205-358-3; $C_{10}H_{14}N_2Na_2O_8x2H_2O$; M 372.24

Cat. No. 051423

EDTA Disodium salt dihydrate

Molecular biology

Application: Chelating agent for metal ions, commonly used in molecular biology to minimize metal ion impurities in reaction buffers.

Appearance	**White powder**	A260nm (0.1M)	**max. 0.2AU**
Assay (on dry basis)	**99-101%**	A280nm (0.1M)	**max. 0.03AU**
Iron (Fe)	**max. 0.01%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
pH (0.1M in water)	**4-5**	Protease activity	**Not detected**
Water (KF Oven 180°C)	**9.0-10.0%w/w**		

EDTA Tetrasodium salt dihydrate

Synonym: *Ethylenediaminetetraacetic acid tetrasodium salt dihydrate*

CAS [10378-23-1]; EC 200-573-9; $C_{10}H_{12}N_2Na_4O_8x2H_2O$; M 416.2

Danger H:302-318; P:264-280-301+312-305+351+338-310

Cat. No. 051323

EDTA Tetrasodium salt dihydrate

Molecular biology

Application: Chelating agent for metal ions, commonly used in molecular biology to minimize metal ion impurities in reaction buffers.

Appearance	**White crystalline powder**	A260nm (0.1M)	**max. 1.5AU**
Solubility (0.1M in water)	**Clear colorless solution**	A280nm (0.1M)	**max. 0.06AU**
Assay (on dry basis)	**99.5-101.0%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	Protease activity	**Not detected**
pH (0.1M in water)	**10.7-11.7**		

EDTA Tetrasodium salt tetrahydrate

Synonym: *Ethylenediaminetetraacetic acid tetrasodium salt tetrahydrate*

CAS [13235-36-4]; EC 200-573-9; $C_{10}H_{12}N_2Na_4O_8x4H_2O$; M 452.22

Cat. No. 053323

EDTA Tetrasodium salt tetrahydrate

Molecular biology

Application: Chelating agent for metal ions, commonly used in molecular biology to minimize metal ion impurities in reaction buffers.

Appearance	**White crystalline powder**	A260nm (0.1M)	**max. 1.5AU**
Solubility (0.1M in water)	**Clear colorless solution**	A280nm (0.1M)	**max. 0.06AU**
Assay (on dry basis)	**99.5-101.0%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	Protease activity	**Not detected**
pH (0.1M in water)	**10.7-11.7**		

Ethidium bromide

Synonym: *3,8-Diamino-5-ethyl-6-phenylphenanthridinium bromide, EtBr, Homidium bromide*

CAS [1239-45-8]; EC 214-984-6; $C_{21}H_{20}BrN_3$; M 394.3

Danger H:302-330-341; P:260-284-310-320-405

Cat. No. 054323

Ethidium bromide

Molecular biology

Application: An aromatic cationic dye, commonly used for fluorometric detection of double stranded nucleic acids. Also acts as an RNA polymerase inhibitor and in separation of high molecular weight DNA's.

Appearance	**Burgundy powder**	A525nm (1%/MeOH)	**145-165AU**
Loss on drying (105°C)	**max. 5%**	DNase activity	**Not detected**
Assay (T, argen.)	**98-102%w/w**	RNase activity	**Not detected**
Absorption max. (MeOH)	**524-527nm**	Protease activity	**Not detected**

Ethidium bromide 1%

CAS [1239-45-8]; EC 214-984-6; $C_{21}H_{20}BrN_3$; M 394.32

Warning; H:341; P:201-202-281-308+313-405

Cat. No. 054123

Ethidium bromide 1%

Molecular biology

Application: An aromatic cationic dye, commonly used for fluorometric detection of double stranded nucleic acids. Also acts as an RNA polymerase inhibitor and in separation of high molecular weight DNA's.

Appearance	**Dark red liquid**	DNase activity	**Not detected**
A480 nm (1%)	**140-160AU**	RNase activity	**Not detected**
Assay	**0.95-1.05%w/v**	Protease activity	**Not detected**
Purity (T, Dry)	**min. 98%w/w**		

Ethidium bromide 0.02%

CAS [1239-45-8]; EC 214-984-6; $C_{21}H_{20}BrN_3$; M 394.32

Warning; H:341; P:201-202-281-308+313-405

Cat. No. 054523

Ethidium bromide 0.02%

Molecular biology

Application: An aromatic cationic dye, commonly used for fluorometric detection of double stranded nucleic acids. Also acts as an RNA polymerase inhibitor and in separation of high molecular weight DNA's.

Appearance	**Clear orange solution**	DNase activity	**Not detected**
Assay	**0.018-0.022%w/v**	RNase activity	**Not detected**
Purity (T, Dry)	**min. 98%w/w**	Protease activity	**Not detected**
A480nm (0.02%)	**2.7-3.3AU**		

Ficoll® 400

Synonym: *Polysucrose 400*

CAS [26873-85-8]; M ~400,000;

Cat. No. 060923

Ficoll® 400

Molecular biology

Application: Commonly used as a component of Denhardt's reagent and in gel-loading buffers for DNA gels.

Appearance	**Almost white powder**	DNase activity	**Not detected**
Solubility (50% W/V in Water)	**Complete**	RNase activity	**Not detected**
Loss on drying (105°C)	**max. 5%**	Protease activity	**Not detected**
S.Rotation 20/D (C=6 in Water)	**53-59°**		

Formamide

Synonym: *Formic amide*

CAS [75-12-7]; EC 200-842-0; CH_3NO; M 45.04

D 1.13; m.p. 2-3 °C; b.p. 210 °C

Danger H:351-373-360D; P:201-202-260-281-308+313-314-405

Cat. No. 068023

Formamide

Molecular biology

Application: Commonly used in nucleic acid hybridization and sequencing, may require pretreatment with a mixed-bed resin (see also Formamide deionized).

Appearance	**Clear colorless liquid**	A260nm (0.5M)	**max. 0.05AU**
Solubility (50% in Water)	**Complete**	A280nm (0.5M)	**max. 0.02AU**
Conductivity (at bottling)	**max. 350µS/cm**	DNase activity	**Not detected**
Assay (GC, on anhydrous basis)	**min. 99%**	RNase activity	**Not detected**
Iron (Fe)	**max. 0.0001%**	Protease activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0001%**		

Formamide deionized

Synonym: *Formic amide*

CAS [75-12-7]; EC 200-842-0; CH_3NO; M 45.04

D 1.13; m.p. 2-3 °C; b.p. 210 °C

Danger H:351-373-360D; P:260-281-308+313-314-405

Cat. No. 068123

Formamide deionized

Molecular biology

Application: Pretreated with a mixed-bed resin and ready for use in nucleic acid hybridization and sequencing.

Appearance	**Clear colorless liquid**	A260nm (0.5M)	**max. 0.05AU**
Solubility (50% in Water)	**Complete**	A280nm (0.5M)	**max. 0.02AU**
Copper (Cu)	**max. 0.0001%**	DNase activity	**Not detected**
Conductivity (at bottling)	**max. 100µS/cm**	RNase activity	**Not detected**
Assay (GC, on anhydrous basis)	**min. 99.5%**	Protease activity	**Not detected**
Iron (Fe)	**max. 0.0001%**		
Heavy metals (as Pb)	**max. 0.0001%**		
Zinc (Zn)	**max. 0.0001%**		

D-(+)-Glucose

CAS [50-99-7]; EC 200-075-1; $C_6H_{12}O_6$; M 180.16; m.p 146 °C

Cat. No. 071423

D-(+)-Glucose

Molecular biology

Application: Commonly used as a component for culture media, also suitable for Isolation of DNA.

Appearance	**White crystalline powder**	Water (KF)	**max. 0.2%w/w**
Solubility (10% in Water)	**Clear colorless solution**	DNase activity	**Not detected**
S.Rotation 20/D (C=10 in 0.05% Ammonia)	**52.5-53.3°**	RNase activity	**Not detected**
		Protease activity	**Not detected**
Residue after ignition	**max. 0.2%**		

Glycerol anhydrous

Synonym: *1,2,3-Propanetriol, Glycerin*

CAS [56-81-5]; EC 200-289-5; $C_3H_8O_3$; M 92.10

D 1.26; m.p. 18 °C; b.p. 290 °C;

Cat. No. 071223

Glycerol anhydrous

Molecular biology

Application: Suitable for low-temperature storage of enzymes and bacterial cultures. Acts as a component in electrophoresis loading buffers, and in purification of proteins.

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.5%w/w**
Acidity (as Acetic acid)	**max. 0.003%**	A260nm (0.5M)	**max. 0.05AU**
Color (APHA)	**max. 10**	A280nm (0.5M)	**max. 0.02AU**
Aldehydes	**max. 0.001%**	DNase activity	**Not detected**
Assay (GC, on anhydrous basis)	**min. 99.5%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
pH (10% in Water)	**6-7**		

Glycerol synthetic

Synonym: *1,2,3-Propanetriol, Glycerin*

CAS [8043-29-6]; EC 200-289-5; $C_3H_8O_3$; M 92.1

D 1.26; m.p. 18 °C; b.p. 290 °C;

Cat. No. 074223

Glycerol synthetic

Molecular biology

Appearance	**Clear colorless liquid**	Water (KF)	**max. 0.5%w/w**
Assay (GC, on anhydrous basis)	**min. 99.5%**	A260nm (0.5M)	**max. 0.02AU**
Color (APHA)	**max. 10**	A280nm (0.5M)	**max. 0.02AU**
Acidity (as Acetic acid)	**max. 0.003%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	RNase activity	**Not detected**
pH (10% in Water)	**6-7**	Protease activity	**Not detected**

Glycine

Synonym: *Aminoacetic acid, Aminoethanoic acid, Glycocoll*

CAS [56-40-6]; EC 200-272-2; $C_2H_5NO_2$; M 75.06; m.p 233 °C

Cat. No. 071323

Glycine

Molecular biology

Application: Commonly used in the preparation of Tris-glycine and Tris-glycine-SDS running buffers for polyacrylamide gel electrophoresis. Glycine is also a component of Towbin's transfer buffer for Western blots.

Appearance	**White crystalline powder**	A260nm (0.1M)	**max. 0.01AU**
Chloride (Cl)	**max. 0.01%**	A280nm (0.1M)	**max. 0.01AU**
Heavy metals (as Pb)	**max. 0.001%**	DNase activity	**Not detected**
pH (5% in water)	**5.9-6.3**	RNase activity	**Not detected**
Sulfate (SO_4)	**max. 0.01%**	Protease activity	**Not detected**
Assay ($HClO_4$)	**min. 99%**		

Guanidine hydrochloride

Synonym: *Aminoformamidine hydrochloride, Aminomethanamidine hydrochloride, Guanidinium ch*

CAS [50-01-1]; EC 200-002-3; CH_5N_3HCl; M 95.53

Warning; H:302-315-319; P:280-301+312-305+351+338-321-362

Cat. No. 074023

Guanidine hydrochloride

Molecular biology

Application: Strong protein-denaturing agent used in the isolation of nucleic acids from cell extracts. Useful as an RNase inhibitor.

Appearance	**Colorless crystals**	A260 (6M)	**max. 0.03AU**
Solubility (6M in Water)	**Clear colorless solution**	A280 (6M)	**max. 0.02AU**
pH (6M in water)	**4.5-6.0**	Water (KF)	**max. 0.2%w/w**
Iron (Fe)	**max. 0.0005%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
Assay (T)	**min. 99.5%w/w**	Protease activity	**Not detected**

Guanidine thiocyanate

Synonym: *Guanidinium rhodanide, Guanidinium thiocyanate*

CAS [593-84-0]; EC 209-812-1; $C_2H_6N_4S$; M 118.16

Warning; H:302-312-332; EUH:032; P:261-280-301+312-304+340-322

Cat. No. 074123

Guanidine thiocyanate

Molecular biology

Application: Chaotropic agent and strong denaturant; solubilize cells. Suitable for the isolation of RNA from cell extracts.

Appearance	**White crystalline powder**	Assay (T, dry)	**min. 99%**
Solubility (6M in Water)	**Clear colorless solution**	A280nm (6M)	**max. 1AU**
Melting point	**118-121°C**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	RNase activity	**Not detected**
pH (1M in water)	**5-7**	Protease activity	**Not detected**

HEPES free acid

Synonym: *4-(2-Hydroxyethyl)piperazine-1-ethanesulfonic acid, N-(2-Hydroxyethyl)piperazine-N'-(2-ethanesulfonic acid)*

CAS [7365-45-9]; EC 230-907-9; $C_8H_{18}N_2O_4S$; M 238.31

Cat. No. 080423

HEPES free acid

Molecular biology

Application: Zwitterionic N-substituted acidic buffering substance used for culturing cells in vitro. Useful in transfections of mammalian cell lines.

Appearance	**White to off-white powder**	Assay (T)	**99-101%w/w**
Iron (Fe)	**max. 0.0005%**	A260nm (0.5M)	**max. 0.05AU**
Loss on drying (105°C)	**max. 0.5%**	A280nm (0.5M)	**max. 0.05AU**
Potassium (K)	**max. 0.1%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
pH (0.5M in water)	**5-6.5**	Protease activity	**Not detected**
Sulfate (SO4)	**max. 0.05%**		

HEPES sodium salt

Synonym: *4-(2-Hydroxyethyl)piperazine-1-ethanesulfonic acid sodium salt, N-(2-Hydroxyethyl)piperazine-N'-(2-ethanesulfonic acid) sodium salt*

CAS [75277-39-3]; EC 278-169-7; $C_8H_{17}N_2NaO_4S$; M 260.27

Cat. No. 080323

HEPES sodium salt

Molecular biology

Loss on drying (105°C)	**max. 3%**	A280nm (0.1M)	**max. 0.02AU**
Heavy metals (as Pb)	**max. 0.001%**	DNase activity	**Not detected**
pH (1% in water)	**9.5-11**	RNase activity	**Not detected**
Assay (T, dry)	**98-102%w/w**	Protease activity	**Not detected**
A260nm (0.1M)	**max. 0.04AU**		

IPTG

Synonym: *Isopropyl beta-D-1-thiogalactopyranoside*

CAS [367-93-1]; EC 206-703-0; $C_9H_{18}O_5S$; M 238.31

Warning; H:302-312-332; P:261-280-301+312-304+340-322

Cat. No. 162423

IPTG

Molecular biology

Application: Commonly used in cloning procedures that require induction of b-galactosidase activity.

Description	**IPTG non-animal origin**	Water (KF)	**max. 1.0%w/w**
Appearance	**White to off-white powder**	Heavy metals (as Pb)	**max. 0.001%**
Identity (IR)	**Conforms with structure**	DNase activity	**Not detected**
Assay (HPLC)	**min. 99%**	RNase activity	**Not detected**
S.Rotation 20/D (C=1 in Water)	**-33.0--31.0°**	Protease activity	**Not detected**
Solubility (5% in Water)	**Clear solution**		

IPTG Vegetal

Synonym: *Isopropyl beta-D-1-thiogalactopyranoside*

CAS [367-93-1]; $C_9H_{18}O_5S$; M 238.31; m.p. 105 °C

Warning; H:302-312-332; P:261-280-301+312-304+340-322

Cat. No. 170923 ***IPTG Vegetal***

Molecular biology

Appearance	**White crystalline powder**	Water (KF)	**max. 1%w/w**
Solubility 5% in Water	**Clear solution**	DNase activity	**Not detected**
Assay by HPLC	**min. 99%**	RNase activity	**Not detected**
S.Rotation 20/D C=1 in Water	**-33.0--31.0°**	Protease activity	**Not detected**

Lysozyme

Synonym: *Mucopeptide N-acetylmuramoylhydrolase, Muramidase*

CAS [12650-88-3]; EC 235-747-3; M ~14,500;

Cat. No. 122223 ***Lysozyme***

Molecular biology

Application: Commonly useful for lyzing gram positive and gram negative bacteria prior to subsequent nucleic acid extraction. Hydrolyses the β-1.4 linkage in chitin.

Appearance	**White crystalline powder**	DNase activity	**Not detected**
Source	**Chicken egg white**	RNase activity	**Not detected**
Activity	**25000-45000U/mg mat.**	Protease activity	**Not detected**
Chloride (Cl)	**max. 3.5%**		

Magnesium acetate tetrahydrate

CAS [16674-78-5]; EC 205-554-9; $C_4H_6MgO_4x4H_2O$; M 214.46; m.p 80 °C

Cat. No. 130823 ***Magnesium acetate tetrahydrate***

Molecular biology

Application: Commonly used in the preparation of buffer solutions and is required as a stabilizer in bacteriophage purification.

Appearance	**White crystalline powder**	pH (1M in water)	**7.5-9**
Solubility (1M in water)	**Clear colorless solution**	A260nm (1M)	**max. 0.03AU**
Chloride (Cl)	**max. 0.005%**	A280nm (1M)	**max. 0.02AU**
Assay (on dry basis)	**min. 99%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.001%**	RNase activity	**Not detected**
Sulfate (SO_4)	**max. 0.02%**	Protease activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**		

Magnesium chloride hexahydrate

CAS [7791-18-6]; EC 232-094-6; Cl_2Mg6H_2O; M 203.30; m.p 117 °C

Cat. No. 131823

Magnesium chloride hexahydrate

Molecular biology

Application: Commonly used for optimization of polymerase chain reactions and also as cell culture salt reagent.

Appearance	**Colorless crystals**	Heavy metals (as Pb)	**max. 0.0005%**
Assay (on dry basis)	**99-101%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.0005%**	RNase activity	**Not detected**
Sulfate (SO_4)	**max. 0.01%**	Protease activity	**Not detected**

Magnesium sulfate heptahydrate

CAS [10034-99-8]; EC 231-298-2; MgO_4Sx7H_2O; M 246.48

Cat. No. 131923

Magnesium sulfate heptahydrate

Molecular biology

Appearance	**White powder**	A260nm (1M)	**max. 0.01AU**
Assay (on dry basis)	**min. 99.5%**	A280nm (1M)	**max. 0.01AU**
Iron (Fe)	**max. 0.001%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
pH (5% in water)	**5-9.2**	Protease activity	**Not detected**

MES free acid anhydrous

Synonym: *2-(N-Morpholino)ethanesulfonic acid, 4-Morpholineethanesulfonic acid*

CAS [4432-31-9]; EC 224-632-3; $C_6H_{13}NO_4S$; M 195.25;

Cat. No. 133623

MES free acid anhydrous

Molecular biology

Application: Useful pH range 5.5 - 6.7; pKa =6.1 at 25°C.

Appearance	**White powder**	pH (10% in Water)	**2.5-4.0**
Solubility (10% in Water)	**Complete, clear**	Sulfate (SO_4)	**max. 0.05%**
Loss on drying (105°C)	**max. 2%**	Assay (T)	**min. 99%w/w**
Heavy metals (as Pb)	**max. 0.0015%**		

MES free acid monohydrate

Synonym: *2-(N-Morpholino)ethanesulfonic acid hydrate, 4-Morpholineethanesulfonic acid*

CAS [145224-94-8]; EC 224-632-3; $C_6H_{13}NO_4SH_2O$; M 213.25

Warning; H:315-319-335; P:261-280-305+351+338-405-501

Cat. No. 130623 ***MES free acid monohydrate***

Molecular biology

Application: Useful pH range 5.5 - 6.7; pKa =6.1 at 25°C.

Appearance	**White crystalline powder**	Sulfate (SO_4)	**max. 0.05%**
Solubility (10% in Water)	**Clear, colorless solution**	Assay (T)	**min. 99%w/w**
Chloride (Cl)	**max. 0.01%**	DNase activity	**Not detected**
Loss on drying (105°C)	**2-9.5%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0015%**	Protease activity	**Not detected**
pH (10% in Water)	**2.5-4**		

N,N'-Methylenebisacrylamide

Synonym: *Bis-Acryl amide*

CAS [110-26-9]; EC 203-750-9; $C_7H_{10}N_2O_2$; M 154.17

Warning; H:302; P:264-270-301+312-330

Cat. No. 133223 ***N,N'-Methylenebisacrylamide***

Molecular biology

Application: Commonly used as cross linker in the preparation of polyacrylamide electrophoresis gels.

Appearance	**White powder**	A290nm (1%)	**max. 0.2AU**
Conductivity (2% in water)	**max. 10µS/cm**	DNase activity	**Not detected**
Assay bisAcrylamide (on dry basis)	**min. 99.5%**	RNase activity	**Not detected**
		Protease activity	**Not detected**
Acrylic acid	**max. 0.03%**		
Residual Methanol (GC)	**max. 0.5%**		

N,N'-Methylenebisacrylamide 2%

Synonym: Bis-Acryl amide

CAS [110-26-9]; EC 203-750-9; $C_7H_{10}N_2O_2$; M 154.17

Cat. No. 014123 ***N,N'-Methylenebisacrylamide 2%***

Molecular biology

Appearance	**Clear colorless liquid**	A290nm (1%)	**max. 0.2AU**
Conductivity (2% in water)	**max. 10µS/cm**	DNase activity	**Not detected**
Assay bisAcrylamide (on dry basis)	**min. 99.5%**	RNase activity	**Not detected**
		Protease activity	**Not detected**
Assay (content)	**1.8-2.2%w/v**		

MOPS free acid

Synonym: *3-(N-Morpholino)propanesulfonic acid, 4-Morpholinepropanesulfonic acid*

CAS [1132-61-2]; EC 214-478-5; $C_7H_{15}NO_4S$; M 209.26; 277-282 °C

Warning; H:302-312; P:264-280-301+312-322-363

Cat. No. 130323

MOPS free acid

Molecular biology

Application: MOPS is used to prepare zwitterionic buffers for RNA electrophoresis in agarose. It works exceptionally well for formaldehyde gels at 20 mM concentration. Electrolyte component for the IEF of 2-D gel electrophoresis. pKa =7.2 at 25°C.

Appearance	**White powder**	A280nm (0.5M)	**max. 0.1AU**
Heavy metals (as Pb)	**max. 0.0005%**	DNase activity	**Not detected**
pH (0.5M in water)	**3-4.5**	RNase activity	**Not detected**
Assay (T)	**99.5-101.0%w/w**	Protease activity	**Not detected**
A260nm (0.5M)	**max. 0.1AU**		

PBS Buffer 10X (sterile)

Synonym: *Phosphate Buffered Saline*

Composition: *Sodium Chloride 1.37M , Potassium Chloride 0.027M , Phosphate 0.119M.*

D 1.07;

Cat. No. 162323

PBS Buffer 10X (sterile)

Molecular biology

Application: Commonly used as biological buffer with a pH range of 6.2 - 7.8. Also used in Horsradish peroxidase assay.

Appearance	**Clear colorless liquid**	DNase activity	**Not detected**
pH of 1X Conc. (25°C)	**7.35-7.45**	RNase activity	**Not detected**
Density of 1X conc (25°C)	**1.00-1.01gr/ml**	Protease activity	**Not detected**
Conductivity of 1X conc (25°C)	**15-20mS/cm**		
pH of 10X Conc. (25°C)	**6.5-6.9**		
Density of 10X Conc. (25°C)	**1.05-1.09gr/ml**		

PIPES

Synonym: *1,4-Piperazinediethanesulfonic acid, Piperazine-1,4-bis(2-ethanesulfonic acid),*

CAS [5625-37-6]; EC 227-057-6; $C_8H_{18}N_2O_6S_2$; M 302.35

Cat. No. 160323

PIPES

Molecular biology

Application: Zwitterionic agent, usable at pH range of 6.1-7.5.

Appearance	**White powder**	A280nm (0.1M/0.2M NaOH)	**max. 0.05AU**
Heavy metals (as Pb)	**max. 0.0005%**	DNase activity	**Not detected**
Assay (T)	**99.5-100.5%**	RNase activity	**Not detected**
A260nm (0.1M/0.2M NaOH)	**max. 0.05AU**	Protease activity	**Not detected**

Potassium acetate

CAS [127-08-2]; EC 204-822-2; $C_2H_3KO_2$; M 98.14

Cat. No. 165823

Potassium acetate

Molecular biology

Assay (T)	**min. 99%w/w**	DNase activity	**Not detected**
pH (5% in water)	**6.5-9**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
Iron (Fe)	**max. 0.0005%**		

Potassium chloride

CAS [7447-40-7]; EC 231-211-8; ClK; M 74.54

Cat. No. 163823

Potassium chloride

Molecular biology

Appearance	**White crystalline powder**	Phosphate (PO_4)	**max. 0.0005%**
Barium (Ba)	**max. 0.001%**	Solubility (1% in Water)	**Clear colorless solution**
Iron (Fe)	**max. 0.0005%**	Assay (T, argen.)	**min. 99.5%w/w**
Water insolubles	**max. 0.005%**	A260nm (1M)	**max. 0.01AU**
Loss on drying (105°C)	**max. 0.2%**	A280nm (1M)	**max. 0.01AU**
Sulfate (SO_4)	**max. 0.03%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	RNase activity	**Not detected**
pH (1M in water)	**5.4-8.6**	Protease activity	**Not detected**

Potassium phosphate monobasic

Synonym: Potassium dihydrogen phosphate, Monopotassium phosphate

CAS [7778-77-0]; EC 231-913-4; KH_2PO_4; M 136.09

Cat. No. 166523

Potassium phosphate monobasic

Molecular biology

Assay (T)	**99.0-101.0%w/w**	pH (5% in water)	**4.1-4.5**
Chloride (Cl)	**max. 0.002%**	A260nm (0.1M)	**max. 0.005AU**
Heavy metals (as Pb)	**max. 0.001%**	A280nm (0.1M)	**max. 0.005AU**
Iron (Fe)	**max. 0.002%**	DNase activity	**Not detected**
Sodium (Na)	**max. 0.005%**	RNase activity	**Not detected**
Loss on drying (105°C)	**max. 0.2%**	Protease activity	**Not detected**

Proteinase K

Synonym: *Endopeptidase K*

CAS [39450-01-6]; EC 254-457-8;

Danger H:315-319-334-335; P:261-285-305+351+338-321

Cat. No. 167323

Proteinase K

Molecular biology

Application: Widely used in DNA and RNA purification and also is used for specific peptide cleaving of surface proteins, glycoproteins and for the characterization of protein fragments produced for structure and function research studies.

Appearance	**White lyophilisate**
Specific Activity (37°C, Hemoglobin)	**30-70U/mg mat.**
DNase activity	**Not detected**
RNase activity	**Not detected**

RNase remover spray

Cat. No. 183123

RNase remover spray

Molecular biology

Application: RNase remover spray is a cleaning agent for the removal of RNase contamination from glass and plastic surfaces. It is effective for cleaning work areas, pipettors and equipment that must be RNase-free, e.g. at eliminating RNase contamination from microcentrifuge tubes without interfering in subsequent enzymic reactions.

Appearance of solution	**Clear foamy liquid**	RNase activity	**Not detected**
Performance of spray	**Passes test**	Protease activity	**Not detected**
Composition	**Complies**		
DNase activity	**Not detected**		

Sodium acetate anhydrous

Synonym: *Acetic acid sodium salt*

CAS [127-09-3]; EC 204-823-8; $C_2H_3NaO_2$; M 82.03; m.p. 324 °C

Cat. No. 190223

Sodium acetate anhydrous

Molecular biology

Application: Widely used in extraction and purification procedures of nucleic acids. Commonly added to DNA reactions to facilitate ethanol precipitation of the DNA.

Appearance	**White to off-white solid**	Heavy metals (as Pb)	**max. 0.001%**
Assay (T. dry)	**99-101%w/w**	Iron (Fe)	**max. 0.001%**
pH (5% in water)	**7.0-9.2**	Phosphate (PO_4)	**max. 0.001%**
Loss on drying (105°C)	**max. 1%**	DNase activity	**Not detected**
Water insolubles	**max. 0.01%**	RNase activity	**Not detected**
A260nm (0.1M)	**max. 0.01AU**	Protease activity	**Not detected**
A280nm (0.1M)	**max. 0.01AU**		
Chloride (Cl)	**max. 0.002%**		

Sodium chloride

CAS [7647-14-5]; EC 231-598-3; ClNa; M 58.44; 801°C

Cat. No. 190323

Sodium chloride

Molecular biology

Appearance	**White crystalline matter**	Assay (T, dry)	**min. 99.8%**
Calcium (Ca)	**max. 0.005%**	Magnesium (Mg)	**max. 0.005%**
Iron (Fe)	**max. 0.0002%**	A260nm (0.1M)	**max. 0.01AU**
Iodides (I)	**max. 0.002%**	A280nm (0.1M)	**max. 0.01AU**
Sulfate (SO_4)	**max. 0.01%**	DNase activity	**Not detected**
Potassium (K)	**max. 0.005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
Phosphate (PO_4)	**max. 0.0005%**		

Tri-Sodium citrate dihydrate

Synonym: *Citric acid trisodium salt dihydrate, Sodium citrate tribasic dihydrate*

CAS [6132-04-3]; EC 200-675-3; $C_6H_5O_7Na_3x2H_2O$; M 294.10

Cat. No. 191223

Tri-Sodium citrate dihydrate

Molecular biology

Application: Commonly used in the preparation of buffers for Northern and Southern hybridizations.

Appearance	**White crystalline powder**	Water (KF)	**11-13%w/w**
Chloride (Cl)	**max. 0.005%**	Assay (T)	**99-101%w/w**
Iron (Fe)	**max. 0.0005%**	A260nm (0.1M)	**max. 0.02AU**
Sulfate (SO_4)	**max. 0.015%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	RNase activity	**Not detected**
pH (5% in water)	**7-9**	Protease activity	**Not detected**

Sodium dodecyl sulfate

Synonym: *Dodecyl sodium sulfate, Dodecyl sulfate sodium salt, Lauryl sulfate sodium salt, SDS, Sodium lauryl sulfate*

CAS [151-21-3]; EC 205-788-1; $C_{12}H_{25}NaO_4S$; M 288.38

Danger H:228-302-311-315-319-335; P:210-241-305+351+338-361-405

Cat. No. 198223

Sodium dodecyl sulfate

Molecular biology

Application: Commonly used detergent in protein purification and electrophoresis.

Appearance	**White matter**	Phosphate (PO_4)	**max. 0.0005%**
Color (10% in water)	**max. 10**	A260nm (0.1M)	**max. 0.1AU**
Assay (Fatty alcohols, C_{12})	**min. 99%**	A280nm (0.1M)	**max. 0.1AU**
Loss on drying (105°C)	**max. 1%**	DNase activity	**Not detected**
Chloride (Cl)	**max. 0.05%**	RNase activity	**Not detected**
Copper (Cu)	**max. 0.0005%**	Protease activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**		

Sodium dodecyl sulfate 20%

Synonym: *Dodecyl sodium sulfate, Dodecyl sulfate sodium salt, Lauryl sulfate sodium salt,SDS, Sodium lauryl sulfate*

CAS [151-21-3]; EC 205-788-1; $C_{12}H_{25}NaO_4S$; M 288.38

Warning; H:312-315-319-335; P:261-305+351+338-405

Cat. No. 198123 ***Sodium dodecyl sulfate 20%***

Molecular biology

Appearance	**Clear colorless liquid**	A260nm (0.1M)	**max. 0.1AU**
Assay (T, on dry basis)	**19-21%w/w**	A280nm (0.1M)	**max. 0.1AU**
Chloride (Cl)	**max. 0.02%**	DNase activity	**Not detected**
Copper (Cu)	**max. 0.0005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
Phosphate (PO4)	**max. 0.0005%**		

Sodium dodecyl sulfate 10%

Synonym: *Dodecyl sodium sulfate, Dodecyl sulfate sodium salt, Lauryl sulfate sodium salt,SDS, Sodium lauryl sulfate*

CAS [151-21-3]; EC 205-788-1; $C_{12}H_{25}NaO_4S$; M 288.38

Warning; H:315-319; P:280-305+351+338-321-332+313-337+313-362

Cat. No. 197923 ***Sodium dodecyl sulfate 10%***

Molecular biology

Appearance	**Clear colorless liquid**	A260nm (0.1M)	**max. 0.1AU**
Assay (T, on dry basis)	**9.5-10.5%w/w**	A280nm (0.1M)	**max. 0.1AU**
Chloride (Cl)	**max. 0.01%**	DNase activity	**Not detected**
Copper (Cu)	**max. 0.0005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
Phosphate (PO4)	**max. 0.0005%**		

Sodium dodecyl sulfate 2%

Synonym: *Dodecyl sodium sulfate, Dodecyl sulfate sodium salt, Lauryl sulfate sodium salt,SDS, Sodium lauryl sulfate*

CAS [151-21-3]; EC 205-788-1; $C_{12}H_{25}NaO_4S$; M 288.38

EUH:210;

Cat. No. 199023 ***Sodium dodecyl sulfate 2%***

Molecular biology

Appearance	**Clear colorless liquid**	A260nm	**max. 0.5AU**
Assay (T, on dry basis)	**1.9-2.1%w/w**	A280nm	**max. 0.05AU**
Chloride (Cl)	**max. 0.01%**	DNase activity	**Not detected**
Copper (Cu)	**max. 0.0005%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	Protease activity	**Not detected**
Phosphate (PO4)	**max. 0.0005%**		

Sodium phosphate dibasic anhydrous

Synonym: *Disodium hydrogen phosphate, sec-Sodium phosphate, Disodium phosphate, Sodium hydrogenphosphate*

CAS [7558-79-4]; EC 231-448-7; HNa_2O_4P ; M 141.96

Cat. No. 194623 ***Sodium phosphate dibasic anhydrous***

Molecular biology

Assay (T)	**99.0-101.0%w/w**	Iron (Fe)	**max. 0.002%**
pH (5% in water)	**8.7-9.3**	Sulfate (SO_4)	**max. 0.005%**
Loss on drying (105°C)	**max. 0.2%**	DNase activity	**Not detected**
Chloride (Cl)	**max. 0.003%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	Protease activity	**Not detected**

D-Sorbitol

CAS [50-70-4]; EC 200-061-5; $C_6H_{14}O_6$; M 182.17; m.p 92-94^{0}C

Cat. No. 199523 ***D-Sorbitol***

Molecular biology

Appearance	**White crystalline powder**	Melting point	**min. 94°C**
Assay (HPLC)	**min. 98%**	Water (KF)	**max. 2%w/w**
S.Rotation 20/D (C=10 in Water)	**-1.8--1.2°**		

SSC Buffer 20X

Synonym: *Sodium citrate-Sodium chloride buffer*

Composition: *Trisodium citrate 0.3M, Sodium Chloride 3M.*

D 1 16;

Cat. No. 198523 ***SSC Buffer 20X***

Molecular biology

Application: Commonly used in the transfer, blocking and hybridization as well as the post-hybridization washing steps in both Northern and Southern blotting.

Appearance	**Clear colorless liquid**	DNase activity	**Not detected**
pH of 1X Conc. (25°C)	**7.75-7.95**	RNase activity	**Not detected**
pH of 20X Conc. (25°C)	**6.9-7.1**	Protease activity	**Not detected**
Conductivity of 20X Conc. (25°C)	**max. 200mS/cm**		

SSPE Buffer 20X

Synonym: *Saline-sodium phosphate EDTA*
Composition: *Sodium phosphate monobasic 0.2M , Sodium chloride 3.0M , EDTA 0.02M*

Cat. No. 198923

SSPE Buffer 20X

Molecular biology

Application: Commonly used in the transfer, blocking and hybridization as well as the post-hybridization washing steps in both Northern and Southern blotting.

Appearance	**Clear colorless liquid**	RNase activity	**Not detected**
pH of 20X Conc. (25°C)	**7.3-7.5**	Protease activity	**Not detected**
DNase activity	**Not detected**		

TAE Buffer 10X

Synonym: *TEA buffer, Tris-Acetate-EDTA buffer*
Composition: *Tris-Acetate 0.4M, EDTA 0.01M*

CAS [135852-26-5]; D 1.015;

Cat. No. 201323

TAE Buffer 10X

Molecular biology

Application: TEA buffer is commonly used for DNA agarose gel electrophoresis and also for non-denaturing RNA agarose gel electrophoresis.

Appearance	**Clear colorless liquid**	Conductivity of 10X Conc. (25°C)	**max. 20mS/cm**
pH of 1X Conc. (25°C)	**8.2-8.4**	DNase activity	**Not detected**
Conductivity of 1X conc (25°C)	**max. 5mS/cm**	RNase activity	**Not detected**
pH of 10X Conc. (25°C)	**8.3-8.5**	Protease activity	**Not detected**

TAE Buffer 25X

Synonym: *TEA buffer, Tris-Acetate-EDTA buffer*
Composition: *Tris-Acetate 1M, EDTA 0.025M*

CAS [135852-26-5];

Warning; H:315-319; P:280-305+351+338-321-332+313-337+313-362

Cat. No. 204323

TAE Buffer 25X

Molecular biology

Application: TEA buffer is commonly used for DNA agarose gel electrophoresis and also for non-denaturing RNA agarose gel electrophoresis.

Appearance	**Clear colorless liquid**	DNase activity	**Not detected**
pH of 1X Conc. (25°C)	**8.2-8.4**	RNase activity	**Not detected**
Conductivity of 1X conc (25°C)	**max. 5mS/cm**	Protease activity	**Not detected**
pH of 25X Conc. (25°C)	**8.3-8.5**		
Conductivity of 25X Conc. (25°C)	**max. 25mS/cm**		

TAE Buffer 50X

Synonym: *TEA buffer, Tris-Acetate-EDTA buffer*
Composition: *Tris-Acetate 2M, EDTA 0.05M*

CAS [135852-26-5]; UN 1993,3,III,F1;

Warning; H:226-315-319-335; P:210-241-303+361+353-305+351+338

Cat. No. 205023

TAE Buffer 50X

Molecular biology

Application: TEA buffer is commonly used for DNA agarose gel electrophoresis and also for non-denaturing RNA agarose gel electrophoresis.

Appearance	**Clear colorless liquid**	DNase activity	**Not detected**
pH of 1X Conc. (25°C)	**8.2-8.4**	RNase activity	**Not detected**
Conductivity of 1X conc (25°C)	**max. 5mS/cm**	Protease activity	**Not detected**
pH of 50X Conc. (25°C)	**8.3-8.5**		
Conductivity of 50X Conc. (25°C)	**max. 25mS/cm**		

TBE Buffer 5X

Synonym: *Tris-Borate-EDTA buffer*
Composition: *Tris Base 0.445M , Boric Acid 0.445M , EDTA 0.01M.*

CAS [610769-35-2];

Cat. No. 205123

TBE Buffer 5X

Molecular biology

Application: TBE buffer is commonly used in nucleic acid electrophoresis.

Appearance	**Clear colorless liquid**	Density of 5X conc. (25°C)	**1.01-1.06gr/ml**
pH of 1X Conc. (25°C)	**8.25-8.45**	Conductivity of 5X conc. (25°C)	**3-5mS/cm**
Density of 1X conc (25°C)	**1.002-1.010gr/ml**	DNase activity	**Not detected**
Conductivity of 1X conc (25°C)	**0.5-1.5mS/cm**	RNase activity	**Not detected**
pH of 5X Conc. (25°C)	**8.2-8.4**	Protease activity	**Not detected**

TBE Buffer 10X

Synonym: *Tris-Borate-EDTA buffer*
Composition: *Tris Base 0.89M , Boric Acid 0.89M , EDTA 0.02M.*

CAS [610769-35-2]; D 1.06;

Danger H:315-319-360; P:280-281-305+351+338-321

Specification continues on the next page

Cat. No. 201423

TBE Buffer 10X

Molecular biology

Application: TBE buffer is commonly used in nucleic acid electrophoresis.

Appearance	**Clear colorless liquid**	Conductivity of 10X Conc. (25°C)	**4-6mS/cm**
pH of 1X Conc. (25°C)	**8.25-8.45**	DNase activity	**Not detected**
Density of 1X conc (25°C)	**1.002-1.010gr/ml**	RNase activity	**Not detected**
Conductivity of 1X conc (25°C)	**0.5-1.5mS/cm**	Protease activity	**Not detected**
pH of 10X Conc. (25°C)	**8.2-8.4**		
Density of 10X Conc. (25°C)	**1.02-1.07gr/ml**		

Composition: Tris Base 0.89M , Boric Acid 0.89M , EDTA 0.02M

TEMED

Synonym: 1,2-Bis(dimethylamino)ethane, N,N,N',N'-Tetramethylethylenediamine, TMEDA

CAS [110-18-9]; EC 203-744-6; $C_6H_{16}N_2$; M 116.21

D 0.78; m.p. -55 °C; b.p. 120-122 °C; UN 2372,3,II,F1

Danger H:225-302-314-332; P:210-303+361+353-305+351+338-310-405

Cat. No. 201023

TEMED

Molecular biology

Appearance	**Clear colorless liquid**	DNase activity	**Not detected**
Density (20/4°C)	**0.76-0.78gr/ml**	RNase activity	**Not detected**
Assay (GC, on anhydrous basis)	**min. 99%**	Protease activity	**Not detected**
Water (KF)	**max. 0.5%w/w**		

TG Buffer 10x concentrate

Synonym: Tris-Glycine buffer

Composition: Tris Base 0.25M, Glycine 1.92M.

D 1.063;

EUH:210;

Cat. No. 203123

TG Buffer 10x concentrate

Molecular biology

Application: Commonly used for non-denaturing polyacrylamide gel electrophoresis of proteins and for electro-blotting proteins in Western blot procedures. Also recommended for use with all nitrocellulose and nylon membranes.

Appearance	**Clear colorless liquid**	RNase activity	**Not detected**
pH of 10X Conc. (25°C)	**8.4-8.8**	Protease activity	**Not detected**
Conductivity of 10X Conc. (25°C)	**3-5mS/cm**		
DNase activity	**Not detected**		

TG-SDS Buffer 1X

Synonym: *Tris-Glycine-SDS buffer*
Composition: *TRIS base 0.025M, Glycine 0.192M, Sodium dodecyl sulfate (SDS) 0.1%*

D 1.0;

Cat. No. 203023 ***TG-SDS Buffer 1X***

Molecular biology

Application: Commonly used as a running buffer in SDS-PAGE.

Appearance	**Clear colorless liquid**	RNase activity	**Not detected**
pH	**8.4-8.8**	Protease activity	**Not detected**
DNase activity	**Not detected**		

TG-SDS Buffer 10X

Synonym: *Tris-Glycine-SDS buffer*
Composition: *TRIS base 0.25M, Glycine 1.92M, Sodium dodecyl sulfate (SDS) 1%*

D 1.07;

EUH:210;

Cat. No. 205223 ***TG-SDS Buffer 10X***

Molecular biology

Application: Commonly used as a running buffer in SDS-PAGE.

Appearance	**Clear colorless liquid**	RNase activity	**Not detected**
pH of 1X Conc. (25°C)	**8.4-8.8**	Protease activity	**Not detected**
pH of 10X Conc. (25°C)	**8.4-8.8**		
DNase activity	**Not detected**		

Trichloroacetic acid

Synonym: TCA

CAS [76-03-9]; EC 200-927-2; $C_2HCl_3O_2$; M 163.39 m.p. 52-58 °C; b.p. 196 °C; UN 1839,8,II,C4

Danger H:314-410; P:260-303+361+353-305+351+338-310

Cat. No. 202123 ***Trichloroacetic acid***

Molecular biology

Appearance	**Colorless to white solid**	A260nm (0.5M)	**max. 1.6AU**
Assay (T)	**99.0-101.0%w/w**	A280nm (0.5M)	**max. 0.15AU**
Solubility (0.5M in Water)	**Complete, colorless**		

Trichloroacetic acid 6.1N

CAS [76-03-9]; EC 200-927-2; $C_2HCl_3O_2$; M 163.39

Danger H:314-410; P:260-303+361+353-305+351+338-310

Cat. No. 202723

Trichloroacetic acid 6.1N

Molecular biology

Appearance	**Clear colorless solution**	A280nm (0.5M)	**max. 0.15AU**
Assay (T)	**6.0-6.2N**		
A260nm (0.5M)	**max. 1.6AU**		

Tricine

Synonym: *N-[Tris(hydroxymethyl)methyl]glycine*

CAS [5704-04-1]; EC 227-193-6; $C_6H_{13}NO_5$; M 179.17; m.p. 182-184 °C

Cat. No. 203423

Tricine

Molecular biology

Application: Commonly used as a component of the Tris-Tricine-SDS (TTS) running buffer, with SDS-PAGE of proteins using the Shagger and von Jagow method. The method is designed for the separation of low molecular weight proteins and differs from the Laemmli method in that the Glycine is replaced with Tricine. This biological buffer has a usable pH range of 7.4 to 8.8.

Appearance	**White powder**	Assay (T)	**98.0-102.0%w/w**
Solubility (10% in Water)	**Clear colorless solution**	DNase activity	**Not detected**
Loss on drying (105°C)	**max. 0.5%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.002%**	Protease activity	**Not detected**
pH (10% in Water)	**4.5-5.5**		

TRIS HCl

Synonym: *TRIS hydrochloride, Tris(hydroxymethyl)aminomethane hydrochloride*

CAS [1185-53-1]; EC 214-684-5; $C_4H_{11}NO_3HCl$; M 157.60; m.p 150-152 °C

Warning; H:315-319-335; P:261-280-305+351+338

Cat. No. 203323

TRIS HCl

Molecular biology

Application: Commonly used as a buffering medium for electrophoresis, molecular biology, and cell culture applications.

Appearance	**White crystalline powder**	A280nm (0.5M)	**max. 0.05AU**
Loss on drying (105°C)	**max. 0.5%**	DNase activity	**Not detected**
pH (0.5M in water)	**3.5-5.5**	RNase activity	**Not detected**
Assay (T, argen.)	**99-101%w/w**	Protease activity	**Not detected**
A260nm (0.5M)	**max. 0.05AU**		

Tris(hydroxymethyl)aminomethane

Synonym: *2-Amino-2-(hydroxymethyl)-1,3-propanediol, Tris base, Trometamol, Tromethamine.*

CAS [77-86-1]; EC 201-064-4; $C_4H_{11}NO_3$; M 121.14; m.p 167-172 °C

P:261

Cat. No. 200923

Tris(hydroxymethyl)aminomethane

Molecular biology

Application: Commonly used for the preparation of reaction buffers, useful pH range 7-9.

Appearance	**White crystalline powder**	Heavy metals (as Pb)	**max. 0.0005%**
Assay (T)	**99.8-100.2%w/w**	Iron (Fe)	**max. 0.0001%**
pH (0.5M in water)	**10-11.5**	DNase activity	**Not detected**
Solubility (0.5M in Water)	**Clear colorless solution**	RNase activity	**Not detected**
Loss on drying (105°C)	**max. 0.3%**	Protease activity	**Not detected**
A280nm (0.5M)	**max. 0.05AU**		

TRIS-EDTA Buffer

Synonym: *TRIS - EDTA buffer*

Composition: *Tris 10mM; EDTA 1mM*

CAS [38641-82-6]; D 1.0;

Cat. No. 201223

TRIS-EDTA Buffer

Molecular biology

Application: Commonly used for suspending nucleic acid samples.

Appearance	**Clear colorless liquid**	DNase activity	**Not detected**
Conductivity (at bottling)	**0.7-1.0mS/cm**	RNase activity	**Not detected**
Density (25/4°C)	**0.990-1.010gr/ml**	Protease activity	**Not detected**
pH	**7.9-8.1**		

Triton® X-100

Synonym: *4-(1,1,3,3-Tetramethylbutyl)phenyl-polyethylene glycol, t-Octylphenoxypolyethoxyethanol, Polyethylene glycol tert-octylphenyl ether, Octoxynol 9.*

CAS [9002-93-1]; $(C_2H_4O)nC_{14}H_{22}O$; D 1.06; m.p. 6°C

Warning; H:302-319-411; P:273-280-301+312-305+351+338-337+313

Cat. No. 201823

Triton® X-100

Molecular biology

Application: Non-ionic surfactant for the recovery of membrane components under non-denaturing conditions, also is used for isoelectric- focusing (IEF) and two-dimensional electrophoresis

Appearance	**Clear viscous liquid**	Water (KF)	**max. 0.2%w/w**
Assay (HPLC)	**min. 98%**	DNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.0005%**	RNase activity	**Not detected**
Peroxides (as H202)	**max. 0.01%**	Protease activity	**Not detected**
pH (5% in water)	**6-8**		

TS Buffer 10X

Synonym: *Tris-SDS Buffer*
Composition: *Tris/Tris-HCl 0.25M, Sodium Chloride 1.37M , Potassium Chloride 0.027M.*

Cat. No. 208823

TS Buffer 10X

Molecular biology

Appearance	**Clear colorless liquid**	RNase activity	**Not detected**
pH of 10X Conc. (25°C)	**7.2-7.6**	Protease activity	**Not detected**
DNase activity	**Not detected**		

TTBS Buffer 10X

Synonym: *Tris-Tween-Buffer-Saline*
Composition: *Tris/Tris-HCl 0.2M, Tween 9mM, Sodium Chloride 1.5M.*

D 1.067;

Cat. No. 208923

TTBS Buffer 10X

Molecular biology

Appearance	**Clear colorless liquid**	RNase activity	**Not detected**
Composition	**Complies**	Protease activity	**Not detected**
pH of 10X Conc. (25°C)	**7.3-7.7**		
DNase activity	**Not detected**		

TWEEN® 20

Synonym: *Polyethylene glycol sorbitan monolaurate, Polyoxyethylenesorbitan monolaurate*

CAS [9005-64-5]; $C_{58}H_{114}O_{26}$; M 1227.72; D 1.11

Cat. No. 204523

TWEEN® 20

Molecular biology

Application: Non-ionic surfactant used in "blocking" solutions, solubilization of membrane proteins and electrophoresis. It is effectively suppresses unspecific reactions between antibodies, antigens and other molecules.

Appearance	**Pale yellow viscous liquid**	Acid value	**max. 2.0mgKOH/gr**
Density (20/4°C)	**1.09-1.12gr/ml**	pH (5% in water)	**5.0-7.0**
Heavy metals (as Pb)	**max. 0.001%**	Residue after ignition	**max. 0.25%**
Water (KF)	**max. 3%w/w**	DNase activity	**Not detected**
Hydroxyl value	**96-108mgKOH/gr**	RNase activity	**Not detected**
Saponification value	**40-50mgKOH/gr**	Protease activity	**Not detected**

Urea

Synonym: *Carbamide, Carbonyldiamide*

CAS [57-13-6]; EC 200-315-5; CH_4N_2O; M 60.06; m.p 131-135 °C

Cat. No. 211823

Urea

Molecular biology

Application: Commonly used as a denaturing agent for DNA and proteins.

Appearance	**White solid**	A260nm (8M)	**max. 0.05AU**
Assay	**99.5-100.5%**	A280nm (8M)	**max. 0.05AU**
Chloride (Cl)	**max. 0.0005%**	DNase activity	**Not detected**
Iron (Fe)	**max. 0.001%**	RNase activity	**Not detected**
Heavy metals (as Pb)	**max. 0.001%**	Protease activity	**Not detected**

Water

CAS [7732-18-5]; EC 231-791-2; H_2O; M 18.01

D 1.00; m.p. 0 °C; b.p. 100 °C;

Cat. No. 232123

Water

Molecular biology

Appearance	**Clear colorless liquid**	Iron (Fe)	**max. 0.00001%**
Resistivity (at manuf.)	**18-18.5Mohm*cm**	Sulfate (SO_4)	**max. 0.00005%**
Residue after evaporation	**max. 0.0002%w/w**	DNase activity	**Not detected**
Subs. reducing KMnO4	**Passes test**	RNase activity	**Not detected**
TOC	**max. 30ppb**	Protease activity	**Not detected**
Chloride (Cl)	**max. 0.00001%**		
Heavy metals (as Pb)	**max. 0.000001%**		

Filtered through 0.2um, aseptically filled.

X-Gal

Synonym: *5-Bromo-4-chloro-3-indolyl beta-D-galactoside*

CAS [7240-90-6]; EC 230-640-8; $C_{14}H_{15}BrClNO_6$; M 408.6

Warning; H:302-312-332; P:261-280-301+312-304+340-322

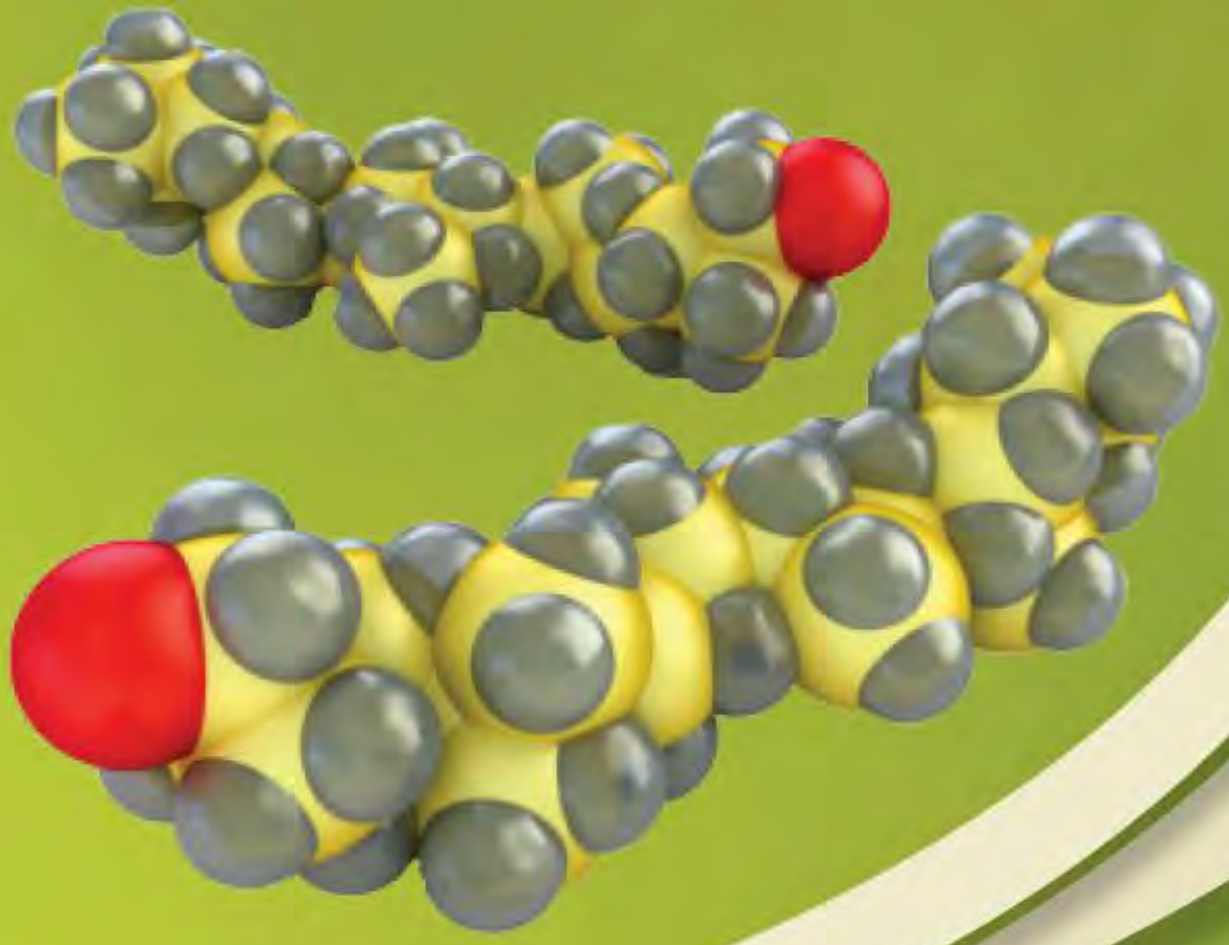
Cat. No. 071023

X-Gal

Molecular biology

Application: Commonly used as a chromogenic substrate for the enzyme β-Galactosidase used in the detection of recombinant bacteriophage. Also used for immunoblotting and immunoblotting and immunocytochemical assays.

Appearance	**White to off-white powder**	Water (KF)	**max. 0.2%w/w**
Solubility (2% in DMF)	**Clear**	DNase activity	**Not detected**
Assay	**min. 99%**	RNase activity	**Not detected**
S.Rotation 20/D (C=1 in Water/DMF 1:1)	**-64--60°**	Protease activity	**Not detected**



FULLY SYNTHETIC SPHINGOLIPIDS & PHOSPHOLIPIDS

Synthetic lipids are used increasingly as key substances (excipients, critical materials etc.) in drug formulations by pharmaceutical companies designing drug delivery technologies (liposome, emulsion, etc.) of manufacturing active pharmaceutical ingredients (API's).
With over 20 years in the lipid synthesis field, Biosolve produces and supplies synthetic lipids from milligrams to multi-kilos quantities. We developed extensive experience and in-depth know-how in the R&D of new lipid based products, high quality phospholipids and other related compounds.
The synthetic lipids are identical to their natural analogs and are well-characterized and defined products free of other lipids, non-lipids, bacterial/viral contamination and their impurity profile is under control.

Custom Development and Manufacture
Please inquire about custom development (of synthetic processes and analytical methods) and GMP manufacture of phospholipids and other products for use in pharmaceutical development.

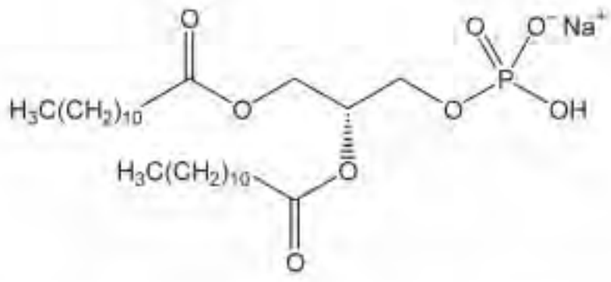
Product Specifications
All products manufactured and supplied according to defined quality standards. Full analytical characterization using TLC, HPLC, NMR-H, NMR-C13, NMR-P and Mass spectrometry are available on request.

Recommended storage
Maintain products under -18°C.

Phosphatidic Acids

DLPA, Na

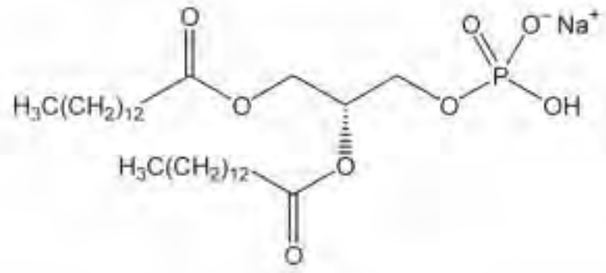
1,2-Dilauroyl-sn-glycero-3-phosphatidic acid, sodium salt



CAS No:	108321-06-8	Molecular Weight:	558.67
Cat. No:	**2778**	Aspect:	White powder
Formula:	$C_{27}H_{52}O_8PNa$	Purity (TLC):	>95%

DMPA, Na

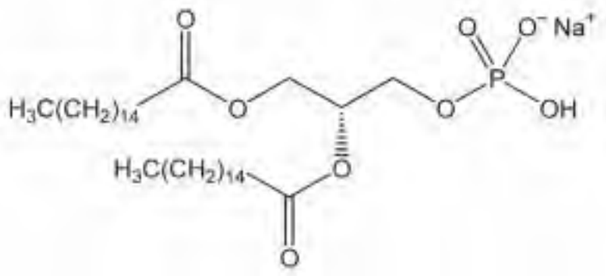
1,2-Dimyristoyl-sn-glycero-3-phosphatidic acid, sodium salt



CAS No:	80724-31-8	Molecular Weight:	614.78
Cat. No:	**3203**	Aspect:	White powder
Formula:	$C_{31}H_{60}O_8PNa$	Assay:	>95%

DPPA, Na

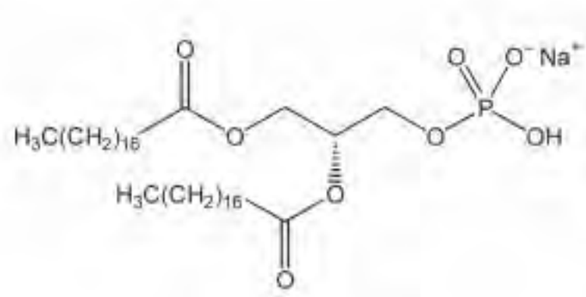
1,2-Dipalmitoyl-sn-glycero-3-phosphatidic acid, sodium salt



CAS No:	169051-60-9	Molecular Weight:	670.89
Cat. No:	**1595**	Aspect:	White powder
Formula:	$C_{35}H_{68}O_8PNa$	Assay (HPLC):	>95%

DSPA, Na

1,2-Distearoyl-sn-glycero-3-phosphatidic acid, sodium salt

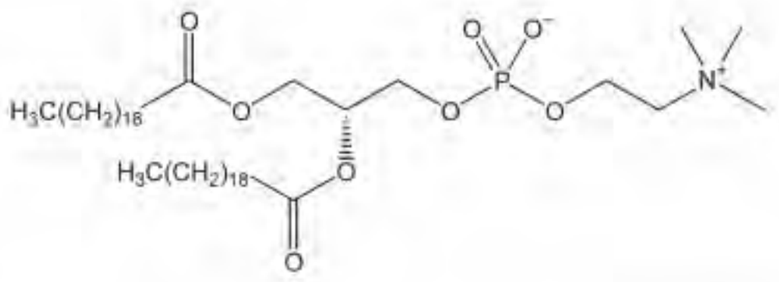


CAS No:	108321-18-2	Molecular Weight:	726.99
Cat. No:	**2779**	Aspect:	White powder
Formula:	$C_{39}H_{76}O_8PNa$	Assay:	>95%

Phosphocholines

DAPC

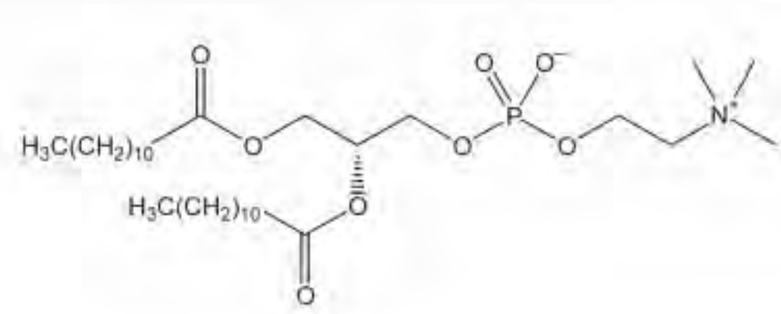
1,2-Diarachidoyl-sn-glycero-3-phosphocholine



CAS No:	61596-53-0	Molecular Weight:	846.28
Cat. No:	**2780**	Aspect:	Crystalline powder
Formula:	$C_{48}H_{96}NO_8P$	Assay (TLC):	>95%

DLPC

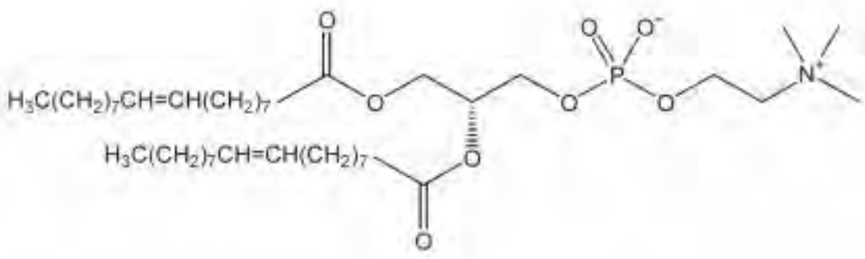
1,2-Dilauroyl-sn-glycero-3-phosphocholine



CAS No:	18194-25-7	Molecular Weight:	621.85
Cat. No:	**2781**	Aspect:	White powder
Formula:	$C_{32}H_{64}NO_8P$	Assay (TLC):	>95%

DOPC

1,2-Dioleoyl-sn-glycero-3-phosphocholine

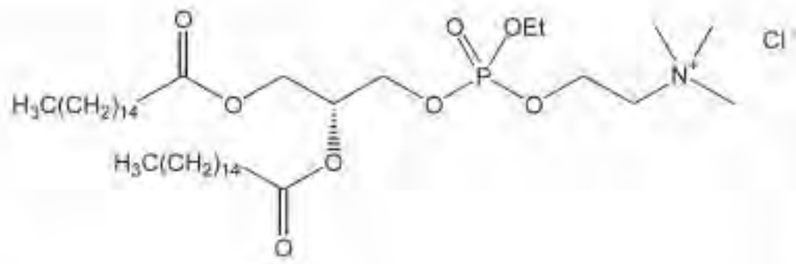


CAS No:	4235-95-4	Molecular Weight:	786.13
Cat. No:	**2782**	Aspect:	White amorphous
Formula:	$C_{44}H_{84}NO_8P$	Purity (TLC):	>95%

DPePC, Cl

1,2-Dipalmitoyl-sn-glycero-O-ethyl-3-phosphocholine,hydrochloride

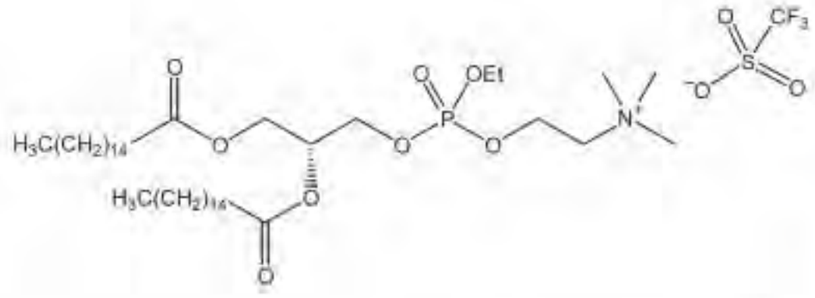
CAS No: 328250-18-6 Molecular Weight: 798.51
Cat. No: 2783 Aspect: White powder with lumps
Formula: $C_{42}H_{85}NO_8PCl$ Purity (TLC): >95%



DPePC, Triflate

1,2-Dipalmitoyl-sn-glycero-O-ethyl-3-phosphocholine,trifluoromethanesulfonate

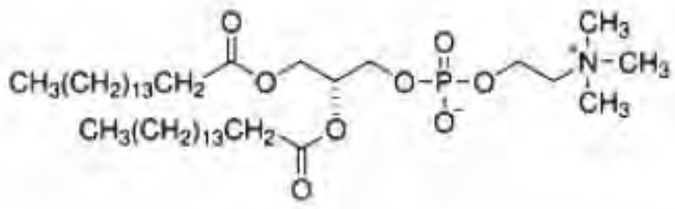
CAS No: 474945-32-9 Molecular Weight: 912.19
Cat. No: 2784 Aspect: White powder with lumps
Formula: $C_{43}H_{85}NO_{11}PSF_3$ Purity (TLC): >95%



DPPC

1,2-Dipalmitoyl-sn-glycero-3-phosphocholine

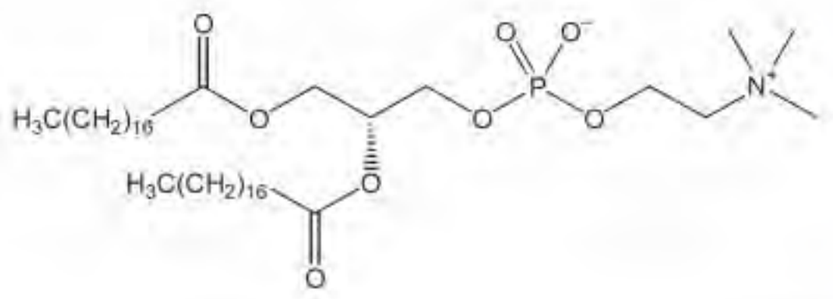
CAS No: 63-89-8 Molecular Weight: 734.04
Cat. No: 1596 Assay(TLC): >98%
Formula: $C_{40}H_{80}NO_8P$



DSPC

1,2-Distearoyl-sn-glycero-3-phosphocholine

CAS No: 816-94-4 Molecular Weight: 790.17
Cat. No: 3140 Aspect: White powder
Formula: $C_{44}H_{88}NO_8P$ Assay (HPLC): >95%

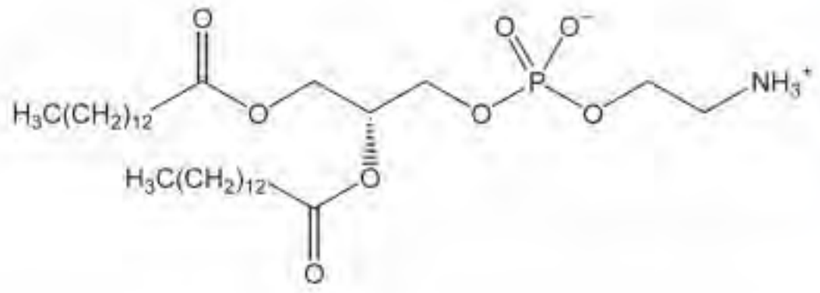


Phosphoethanolamines

DMPE

1,2-Dimyristoyl-sn-glycero-3-phosphoethanolamine

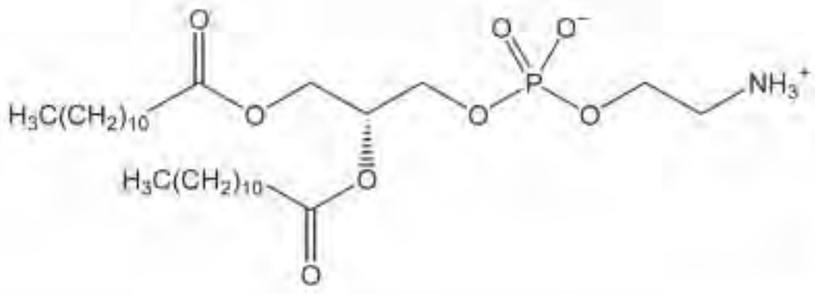
CAS No: 998-07-2 Molecular Weight: 635.87
Cat. No: 2785 Assay: >95%
Formula: $C_{33}H_{66}NO_8P$ Aspect: White powder



DLPE

1,2-Dilauroyl-sn-glycero-3-phosphoethanolamine

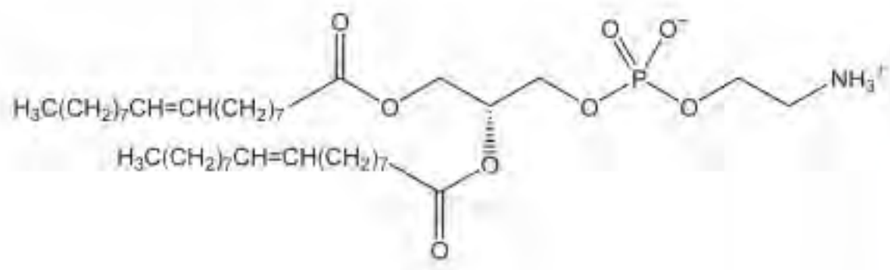
CAS No: 42436-56-6 Molecular Weight: 579.76
Cat. No: 2786 Assay: >95%
Formula: $C_{29}H_{58}NO_8P$ Aspect: White powder



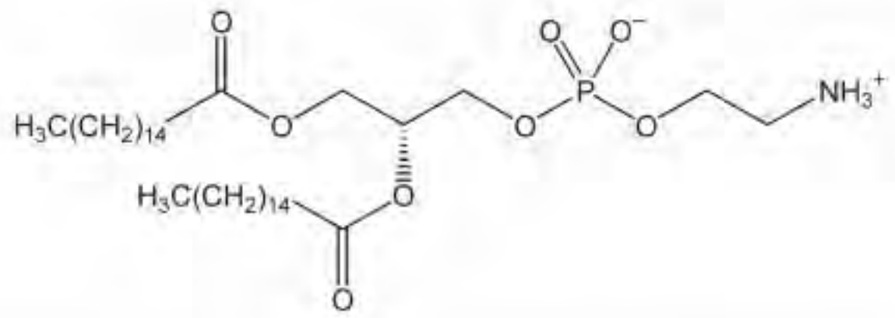
DOPE

1,2-Dioleoyl-sn-glycero-3-phosphoethanolamine

CAS No: 4004-05-1 Molecular Weight: 744.05
Cat. No: 2787 Aspect: White powder
Formula: $C_{41}H_{78}NO_8P$

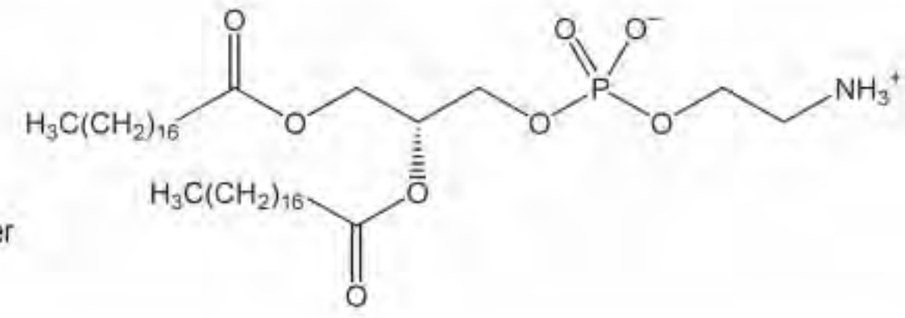


DPPE
1,2-Dipalmitoyl-sn-glycero-3-phosphoethanolamine



CAS No:	923-61-5	Molecular Weight:	691.98
Cat. No:	**2789**	Aspect:	White powder
Formula:	$C_{37}H_{74}NO_8P$	Purity (TLC):	>95%

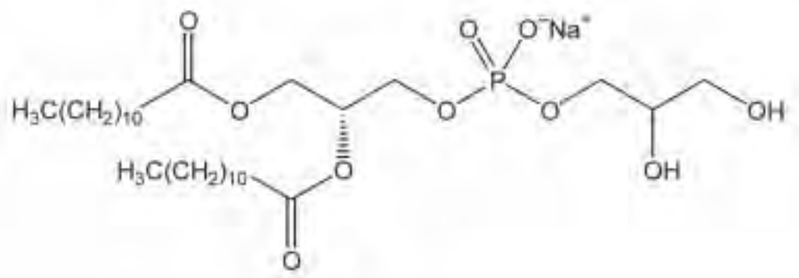
DSPE
1,2-Distearoyl-sn-glycero-3-phosphoethanolamine



CAS No:	1069-79-0	Molecular Weight:	748.08
Cat. No:	**2788**	Aspect:	White amorphous powder
Formula:	$C_{41}H_{82}NO_8P$	Purity (TLC):	>95%

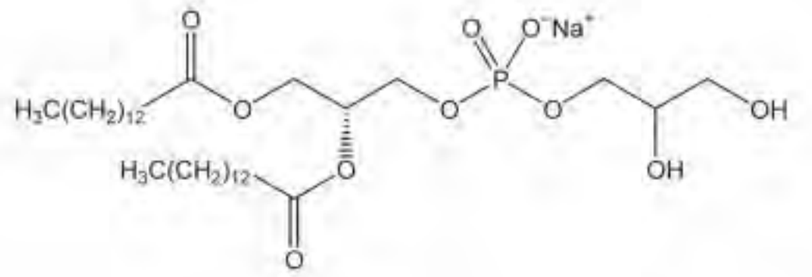
Phosphoglycerols

DLPG, Na
1,2-Dilauroyl-sn-glycero-3-phosphoglycerol, sodium salt



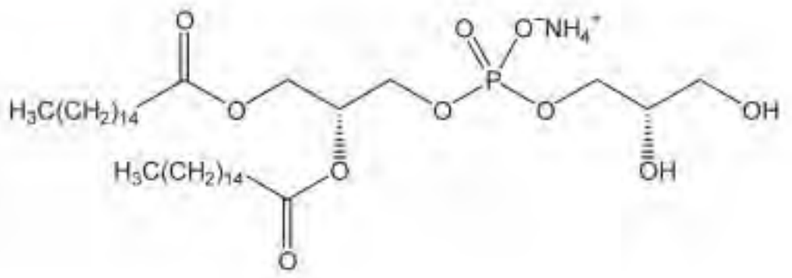
CAS No:	73548-69-3	Molecular Weight:	632.75
Cat. No:	**2790**	Aspect:	White powder
Formula:	$C_{30}H_{58}O_{10}PNa$	Assay:	>95%

DMPG, Na
1,2-Dimyristoyl-sn-glycero-3-phosphoglycerol, sodium salt



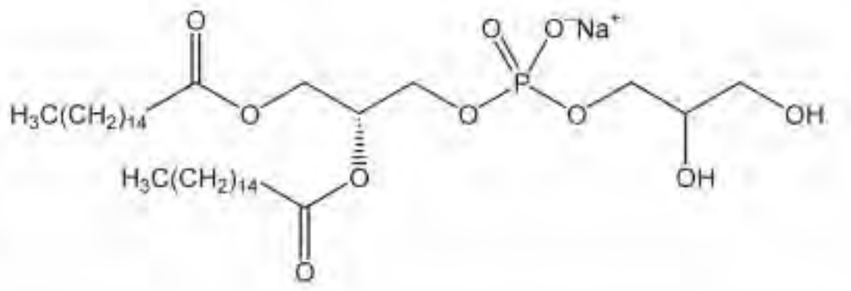
CAS No:	200880-40-6	Molecular Weight:	688.86
Cat. No:	**2812**	Aspect:	White powder
Formula:	$C_{34}H_{66}O_{10}PNa$	Assay (HPLC):	>95%

DMP-sn-1-G, NH4
1,2-Dimyristoyl-sn-glycero-3-phospho-sn-1-glycerol, ammonium salt



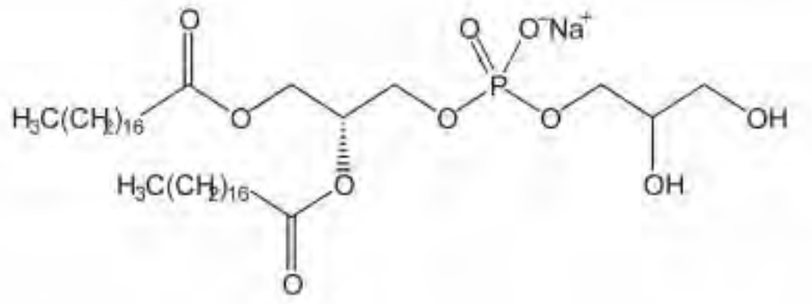
CAS No:	953758-30-0	Molecular Weight:	683.91
Cat. No:	**2791**	Aspect:	Amorphous white powder
Formula:	$C_{34}H_{70}NO_{10}P$	Assay:	>95%

DPPG, Na
1,2-Dipalmitoyl-sn-glycero-3-phosphoglycerol, sodium salt



CAS No:	200880-41-7	Molecular Weight:	744.97
Cat. No:	**3155**	Aspect:	Crystalline white powder
Formula:	$C_{38}H_{74}O_{10}PNa$	Purity:	>95%

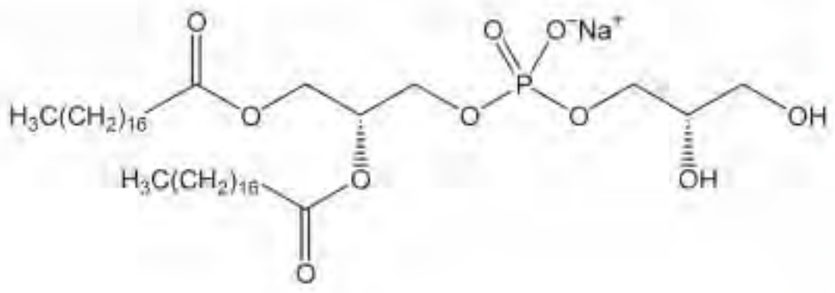
DSPG, Na
1,2-Distearoyl-sn-glycero-3-phosphoglycerol, sodium salt



CAS No:	124011-52-5	Molecular Weight:	801.08
Cat. No:	**2793**	Aspect:	White powder
Formula:	$C_{42}H_{82}O_{10}PNa$	Assay (HPLC):	>95%

DSP-sn-1-G, Na

1,2-Distearoyl-sn-glycero-3-phospho-sn-1-glycerol, sodium salt

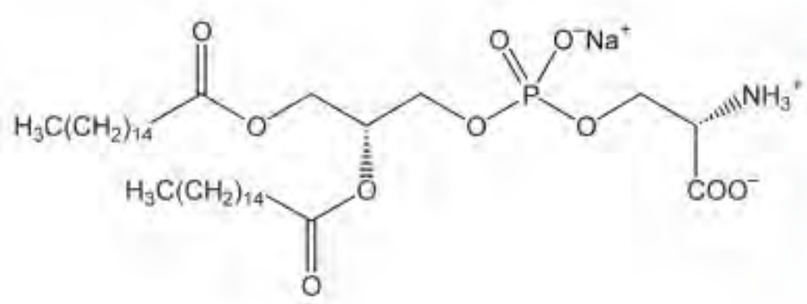


CAS No:	148553-48-4	Molecular Weight:	801.08
Cat. No:	**2794**	Aspect:	White powder
Formula:	$C_{42}H_{82}O_{10}PNa$	Assay (HPLC):	>95%

Phosphoserines

DPPS, Na

1,2-Dipalmitoyl-sn-glycero-3-phospho-L-serine, sodium salt

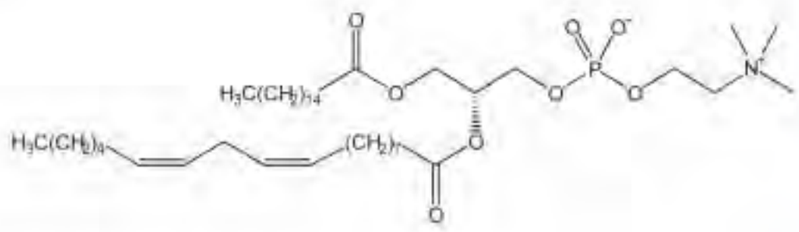


CAS No:	145849-32-7	Molecular Weight:	757.97
Cat. No:	**3204**	Purity (TLC):	>95%
Formula:	$C_{38}H_{73}NO_{10}PNa$		

Phospholipids with heterogeneous fatty acid chains

PLinoPC

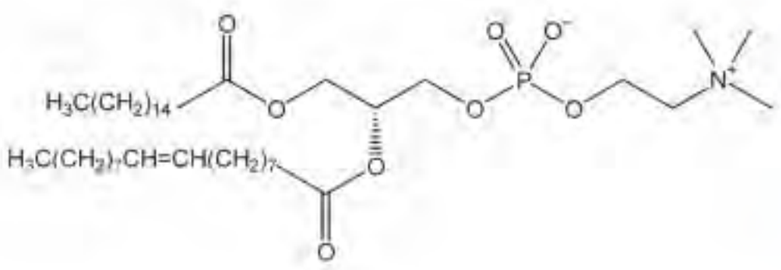
1-Palmitoyl-2-linoleoyl-sn-glycero-3-phosphocholine



CAS No:	17708-90-6	Molecular Weight:	758.08
Cat. No:	**2795**	Aspect:	White powder
Formula:	$C_{42}H_{80}NO_8P$	Purity (TLC):	>95%

POPC

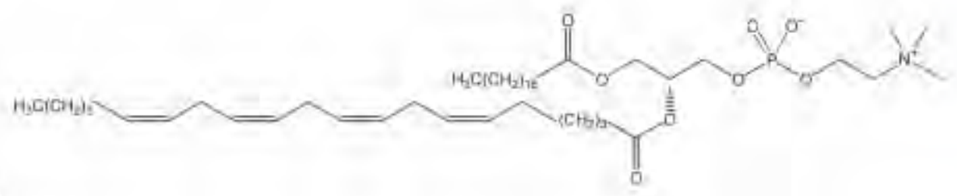
1-Palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine



CAS No:	26853-31-6	Molecular Weight:	760.10
Cat. No:	**3205**	Aspect:	White powder
Formula:	$C_{42}H_{82}NO_8P$	Purity (HPTLC):	>95%

SAPC

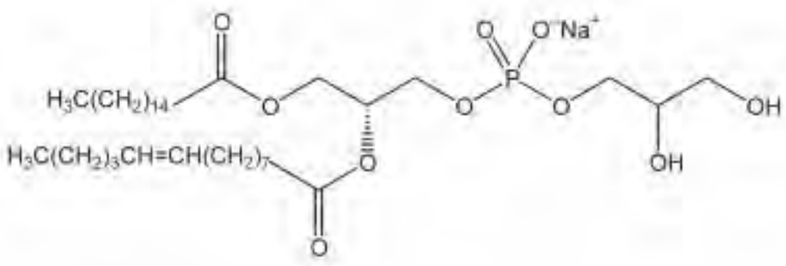
1-Stearoyl-2-arachidonoyl-sn-glycero-3-phosphocholine



CAS No:	110037-43-9	Molecular Weight:	810.15
Cat. No:	**2796**	Aspect:	Brown oil (gelatine)
Formula:	$C_{46}H_{84}NO_8P$	Purity (TLC):	>95%

POPG, Na

1-Palmitoyl-2-oleoyl-sn-glycero-3-phosphoglycerol, sodium salt

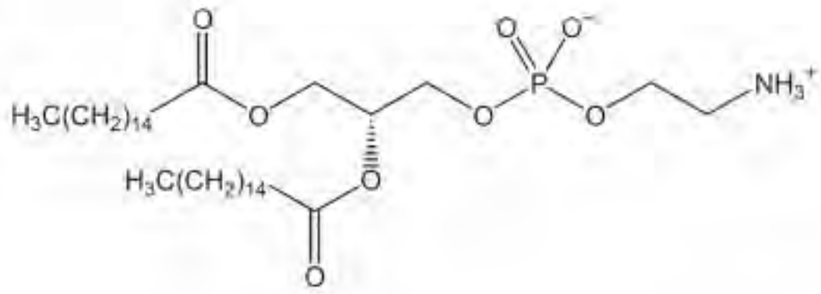


CAS No:	202070-86-8	Molecular Weight:	771.01
Cat. No:	**2979**	Aspect:	White powder
Formula:	$C_{40}H_{76}O_{10}PNa$	Purity (HPTLC):	>95%

MPEGylated Phospholipids (Methoxypolyethyleneglycol-)

MPEG-2000-DMPE

N-(Carbonyl-methoxypolyethyleneglycol-2000)-1,2- dimyristoyl-sn-glycero-3-phosphoethanolamine, sodium salt



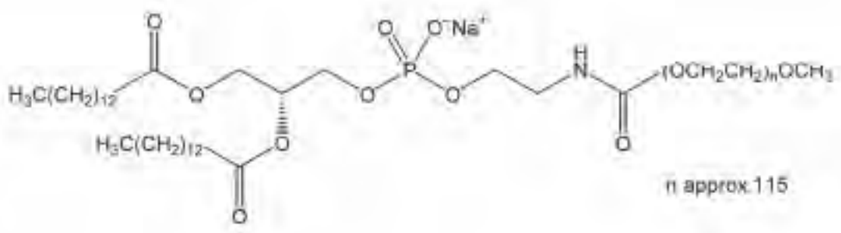
Cat. No: 2798 Aspect: White powder

Formula: $C_{35}H_{67}NO_{10}P(C_2H_4O)nNa$; n≈45 Purity: >95%

Molecular Weight: Approx. 2700

MPEG-5000-DMPE

N-(Carbonyl-methoxypolyethyleneglycol-5000)-1,2-dimyristoyl-sn-glycero-3-phosphoethanolamine, sodium salt



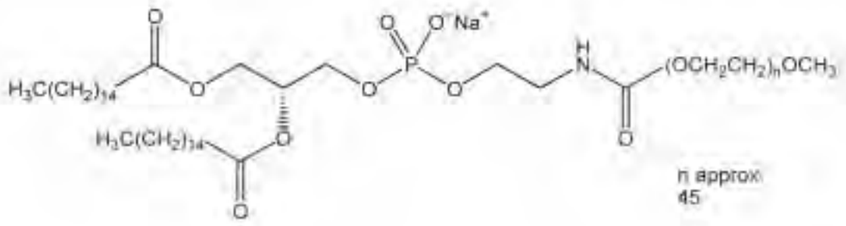
Cat. No: 2799 Aspect: White powder

Formula: $C_{35}H_{67}NO_{10}P(C_2H_4O)nNa$; n≈115 Purity: >95%

Molecular Weight: Approx. 5700

MPEG-2000-DPPE

N-(Carbonyl-methoxypolyethyleneglycol-2000)-1,2-dipalmitoyl-sn-glycero-3-phosphoethanolamine, sodium salt



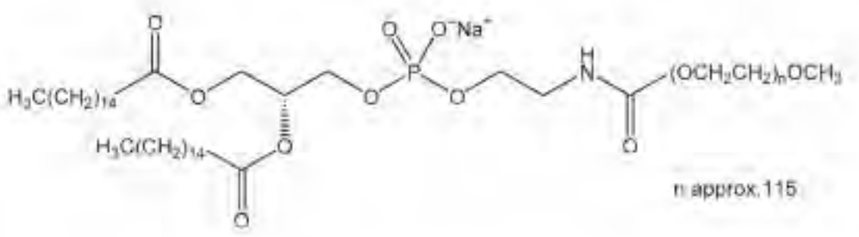
CAS No: 205494-72-0 Molecular Weight: approx . 2750

Cat. No: 2800 Aspect: White powder

Formula: $C_{39}H_{75}NO_{10}P(C_2H_4O)nNa$; n≈45 Purity (TLC): >95%

MPEG-5000-DPPE

N-(Carbonyl-methoxypolyethyleneglycol-5000)-1,2-dipalmitoyl-sn-glycero-3-phosphoethanolamine, sodium salt



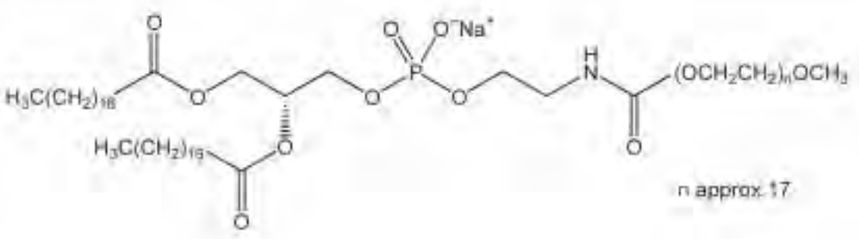
CAS No: 205494-72-0 Molecular Weight: approx . 5750

Cat. No: 2801 Aspect: White powder

Formula: $C_{39}H_{75}NO_{10}P(C_2H_4O)nNa$; n≈115 Purity (TLC): >95%

MPEG-750-DSPE

N-(Carbonyl-methoxypolyethyleneglycol-750)-1,2-distearoyl-sn-glycero-3-phosphoethanolamine, sodium salt



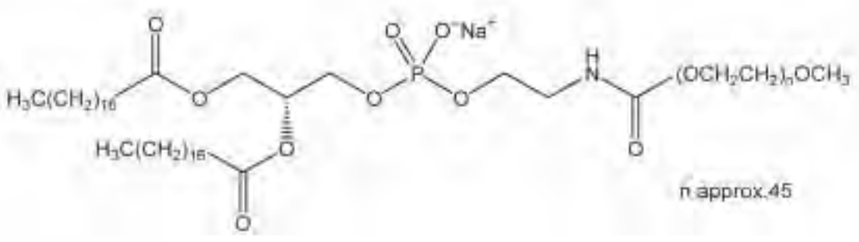
CAS No: 147867-65-0 Molecular Weight: approx. 1550

Cat. No: 2802 Aspect: White solid

Formula: $C_{43}H_{83}NO_{10}P(C_2H_4O)nNa$; n≈17 Purity (TLC): >95%

MPEG-2000-DSPE

N-(Carbonyl-methoxypolyethyleneglycol-2000)-1,2-distearoyl-sn-glycero-3-phosphoethanolamine, sodium salt



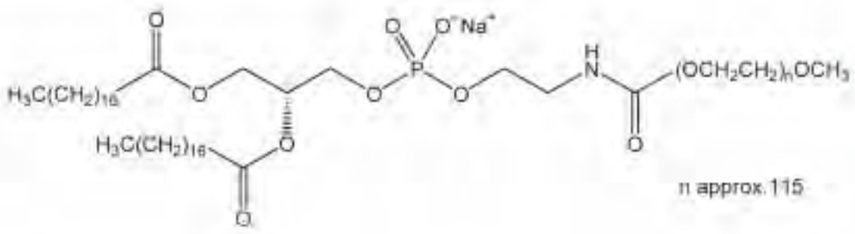
CAS No: 147867-65-0 Molecular Weight: approx. 2800

Cat. No: 2803 Aspect: White powder

Formula: $C_{43}H_{83}NO_{10}P(C_2H_4O)nNa$; n≈45 Purity: >95%

MPEG-5000-DSPE

N-(Carbonyl-methoxypolyethyleneglycol-5000)-1,2-distearoyl-sn-glycero-3-phosphoethanolamine, sodium salt



CAS No: 147867-65-0 | Molecular Weight: approx. 5900

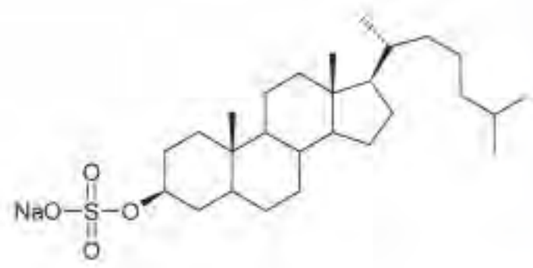
Cat. No: 2804 | Aspect: White powder

Formula: $C_{43}H_{83}NO_{10}P(C_2H_4O)nNa$; n≈ 115 | Purity: >95%

Cholesterol, Derivative of

SCS

Cholesterol sulfate sodium salt



CAS No: 2864-50-8 | Molecular Weight: 488.71

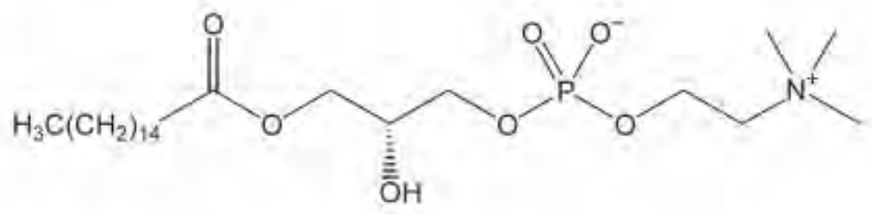
Cat. No: 2807 | Aspect: White powder

Formula: $C_{27}H_{45}O_4SNa$ | Assay (HPLC): >95%

2-Lyso-phopholipids

P-lyso-PC

1-Palmitoyl-2-lyso-sn-glycero-3-phosphocholine



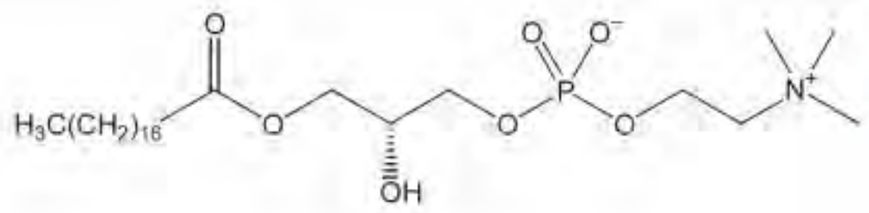
CAS No: 17364-16-8 | Molecular Weight: 495.64

Cat. No: 2805 | Aspect: White powder

Formula: $C_{24}H_{50}NO_7P$ | Assay (HPLC): >95%

S-lyso-PC

1-Stearoyl-2-lyso-sn-glycero-3-phosphocholine



CAS No: 19420-57-6 | Molecular Weight: 523.70

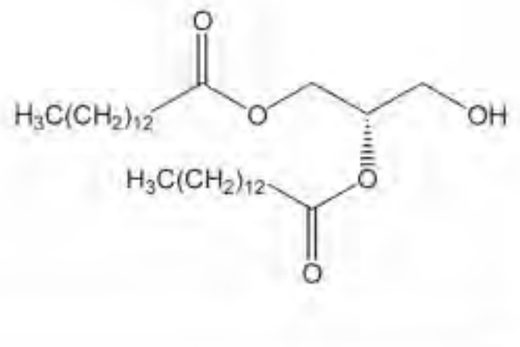
Cat. No: 2808 | Aspect: White powder

Formula: $C_{26}H_{54}NO_7P$ | Purity (HPLC): >95%

Diacylglycerols

DMG

1,2-Dimyristoyl-sn-glycerol



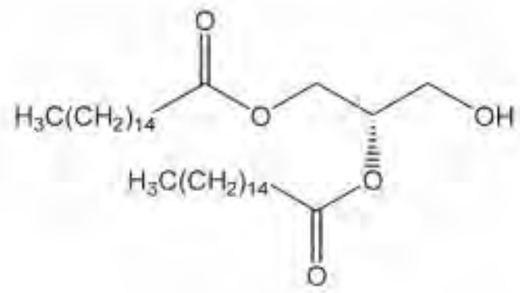
CAS No: 60562-16-5 | Molecular Weight: 512.82

Cat. No: 2809 | Aspect: White powder with lumps

Formula: $C_{31}H_{60}O_5$ | Purity (TLC): >95%

DPG

1,2-Dipalmitoyl-sn-glycerol

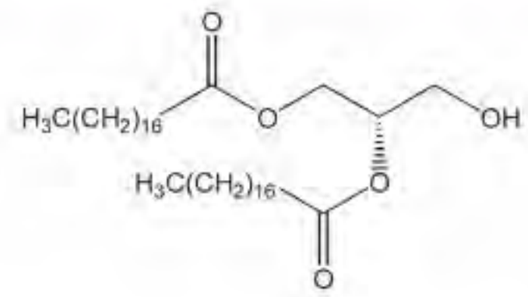


CAS No: 30334-71-5 | Molecular Weight: 568.93

Cat. No: 3145 | Aspect: Off-white powder

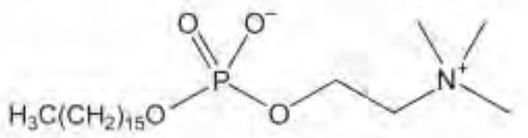
Formula: $C_{35}H_{68}O_5$ | Purity (TLC): >98%

DSG
1,2-Distearoyl-sn-glycerol



CAS No:	1429-59-0	Molecular Weight:	625.04
Cat. No:	**2811**	Aspect:	White powder
Formula:	$C_{39}H_{76}O_5$	Purity (TLC):	>95%

Hexadecyl-PC
Hexadecyl-phosphocholine

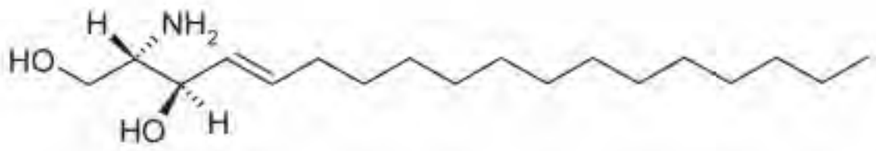


CAS No:	58066-85-6	Molecular Weight:	405.56
Cat. No:	**2810**	Aspect:	White powder
Formula:	$C_{21}H_{44}NO_4P$	Purity (TLC):	>95%

FULLY SYNTHETIC SPHINGOLIPIDS
The list here under is partial, please enquire for other products and special purity requirements.

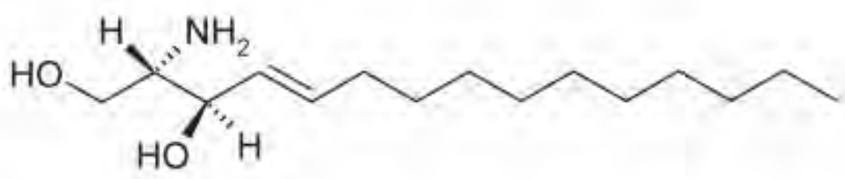
Sphingosines

D-erythro-Sphingosine C-18 base fully synthetic
Sphingosine C18 (2S,3R,4E)-2-aminooctadec-4-ene-1,3-diol trans-4-sphingenine



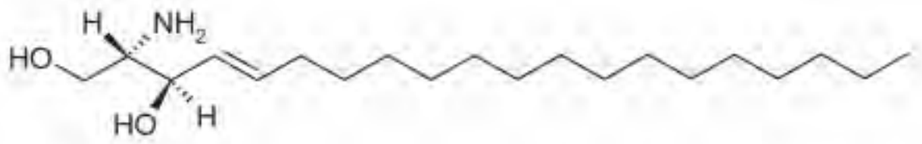
CAS No:	123-78-4	B (Boron)	max. 0.03%
Cat No:	**0500**	Ca (Calcium)	max. 0.03%
Formula:	$C_{18}H_{37}NO_2$	Fe (Iron)	max. 0.05%
MW:	299.5	K (Potassium)	max. 0.02%
Purity (TLC)	min. 97%	Mg (Magnesium)	max. 0.005%
Water (KF)	max. 2%w/w	Na (Sodium)	max. 0.05%
NMR H1 spectrum	Conforms to structure	Si (Silicon)	max. 0.005%
MS Spectra	ESI+ Corresponds	Zn (Zinc)	max. 0.005%

D-erythro-Sphingosine C-15 base fully synthetic
Sphingosine C15 (2S,3R,4E)-2-aminopentadec-4-ene-1,3-diol



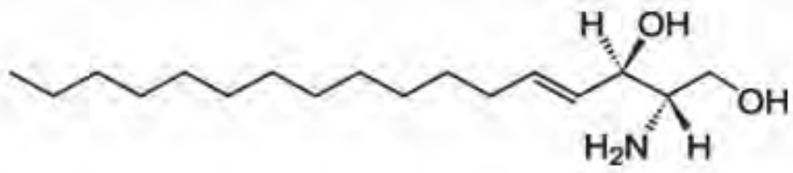
Cat No:	**0392**	Aspect:	White powder
Formula:	$C_{15}H_{33}NO_2$	Purity (TLC, HPLC):	>98%
MW:	257.4		

D-erythro-Sphingosine C-20 fully synthetic
Sphingosine C20 (2S,3R,4E)-2-aminoeicos-4-ene-1,3-diol



CAS No:	6918-49-6	MW:	327.6
Cat No:	**0506**	Aspect:	White powder
Formula:	$C_{20}H_{41}NO_2$	Purity (TLC, HPLC):	>98%

D-erythro-Sphingosine C17

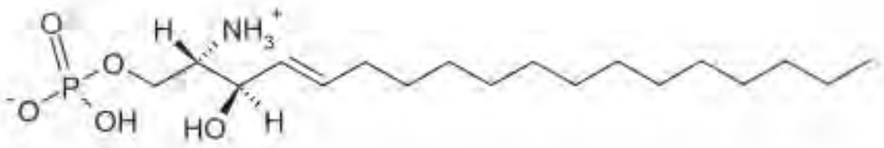


CAS No:	6918-48-5	MW:	285.47
Cat No:	**0502**	Purity (TLC)	>98%
Formula:	$C_{17}H_{35}NO_2$		

Sphingosine derivatives

D-erythro-Sphingosine-1-Phosphate fully synthetic

Sphingosine-1-PO4 (2S,3R,4E)-2-aminooctadec-4-ene-1,3-diol-1-Phosphate

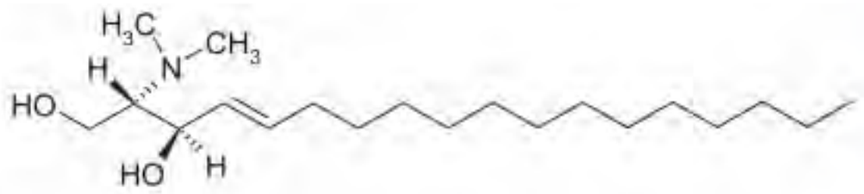


CAS No:	26993-30-6	MW:	379.7
Cat No:	**1910**	Aspect:	White powder
Formula:	$C_{18}H_{38}NO_5P$	Purity (TLC, HPLC):	>98%

Please inquire about different chain-length analogs!

N,N-Dimethyl-D-erythro-Sphingosine fully synthetic

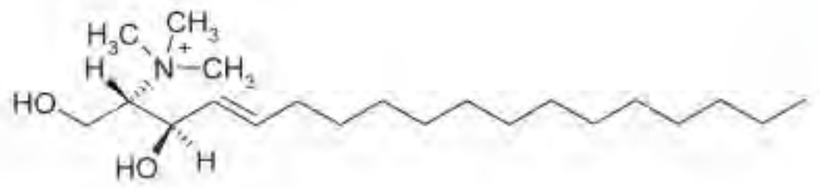
Dimethylsphingosine (2S,3R,4E)-2-dimethylaminooctadec-4-ene-1,3-diol



CAS No:	119567-63-4	MW:	327.6
Cat No:	**0503**	Aspect:	Purity (TLC, colorless to off-white oil
Formula:	$C_{20}H_{41}NO_2$	HPLC):	>98%

N,N,N-Trimethyl-D-erythro-Sphingosine sulphomethylate salt fully synthetic

Trimethylsphingosine (2S,3R,4E)-2-trimethylaminooctadec-4-ene-1,3-diol (Sulphomethylate salt)

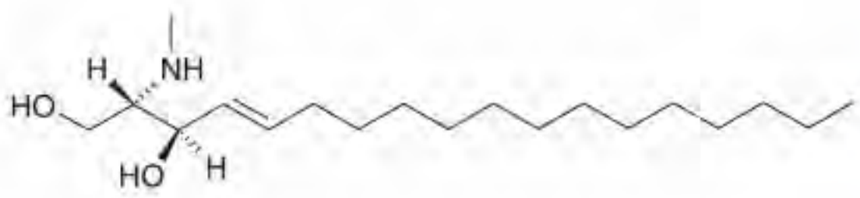


CAS No:	133561-52-1	MW:	453.7
Cat No:	**0505**	Aspect:	White solid
Formula:	$C_{21}H_{47}NO_6S$	Purity (TLC, HPLC):	>98%

Other Trimethylsphingosine salts can be made available

N-Methyl-D-erythro-Sphingosine fully synthetic

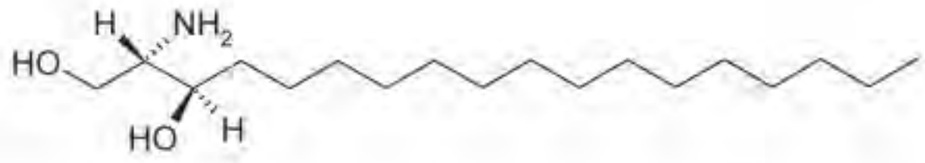
Methylsphingosine (2S,3R,4E)-2-(methylamino)octadec-4-ene-1,3-diol



CAS No:	2700-62-1	MW:	313.5
Cat No:	**1358**	Aspect:	colorless to off-white oil
Formula:	$C_{19}H_{39}N_2O_2$	Purity (TLC, HPLC):	>98%

D-erythro-Sphinganine fully synthetic

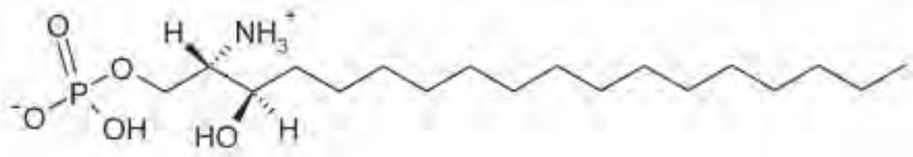
D-eryhtro-Dihydro-Sphingosine (2S,3R)-2-aminooctadecane-1,3-diol



CAS No:	764-22-7	MW:	301.5
Cat No:	**0501**	Aspect:	White powder
Formula:	$C_{18}H_{39}NO_2$	Purity (TLC, HPLC):	>98%

D-erythro-Sphinganine-1-Phosphate fully synthetic

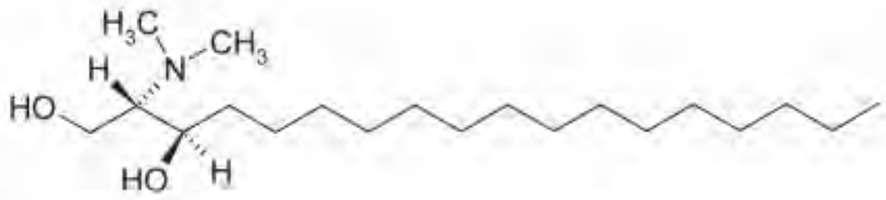
D-erythro-Dihydro-Sphingosine-1-Phosphate Sphinganine-1-PO4 (2S,3R)-2-aminooctadec-1,3-diol-1-Phosphate



CAS No:	19794-97-9	MW:	381.7
Cat No:	**3100**	Aspect:	White powder
Formula:	$C_{18}H_{40}NO_5P$	Purity (TLC):	>98%

N,N-Dimethyl-D-erythro-Sphinganine fully synthetic

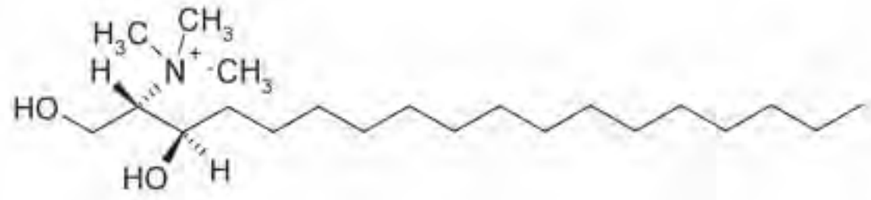
N,N-Dimethyl-D-erythro-Dihydro-Sphingosine Dimethylsphinganine
(2S,3R)-2-dimethylaminooctadecane-1,3-diol



CAS No:	17267-46-8	MW:	329.6
Cat No:	**3101**	Aspect:	colorless to off-white oil
Formula:	$C_{20}H_{43}NO_2$	Purity (TLC, HPLC):	>98%

N,N,N-Trimethyl-D-erythro-Sphinganine sulphomethylate salt fully synthetic

N,N,N-Trimethyl-D-erythro-Dihydro-Sphingosine sulphomethylate salt
Trimethylsphinganine (2S,3R)-2-trimethylaminooctadecane-1,3-diol
(Sulphomethylate salt)



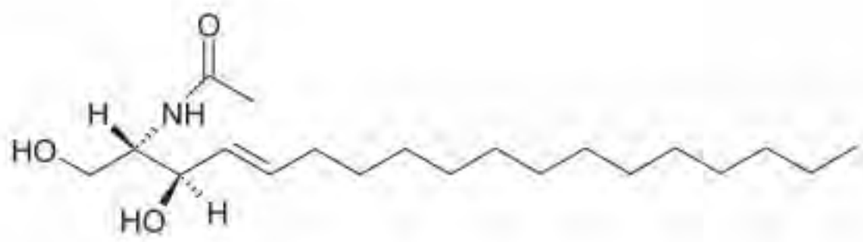
Cat No:	**3102**	Aspect:	White solid
Formula:	$C_{24}H_{49}NO_6S$	Purity (TLC, HPLC):	>98%
MW:	455.7		

Ceramides (N-Acylated Sphingosines)

We offer a comprehensive list of fully synthetic highly purified ceramides with various chain-lengths.

N-Acetoyl-D-erythro-Sphingosine fully synthetic

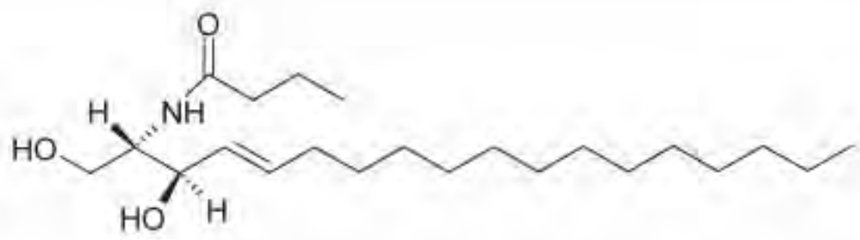
Ceramide C2:0 (2S,3R,4E)-2-acetoylaminooctadec-4-ene-1,3-diol



CAS No:	195194-58-2	MW:	341.5
Cat No:	**0390**	Aspect:	White powder
Formula:	$C_{20}H_{39}NO_3$	Purity (TLC, HPLC):	>98%

N-Butyroyl-D-erythro-Sphingosine fully synthetic

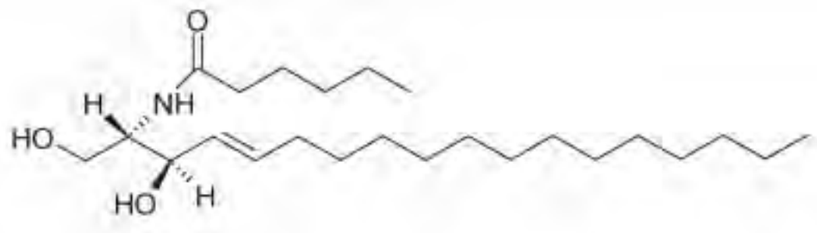
Ceramide C4:0 (2S,3R,4E)-2-butyroylaminooctadec-4-ene-1,3-diol



CAS No:	74713-58-9	MW:	369.6
Cat No:	**0389**	Aspect:	White crystalline powder
Formula:	$C_{22}H_{43}NO_3$	Purity (TLC, HPLC):	>98%

N-Hexanoyl-D-erythro-Sphingosine fully synthetic

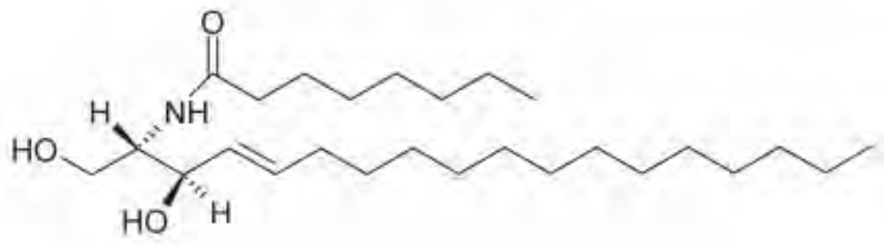
Ceramide C6:0 (2S,3R,4E)-2-hexanoylaminooctadec-4-ene-1,3-diol



CAS No:	124753-97-5	MW:	397.6
Cat No:	**0393**	Aspect:	White powder
Formula:	$C_{24}H_{47}NO_3$	Purity (TLC, HPLC):	>98%

N-Octanoyl-D-erythro-Sphingosine fully synthetic

Ceramide C8:0 (2S,3R,4E)-2-octanoylaminooctadec-4-ene-1,3-diol

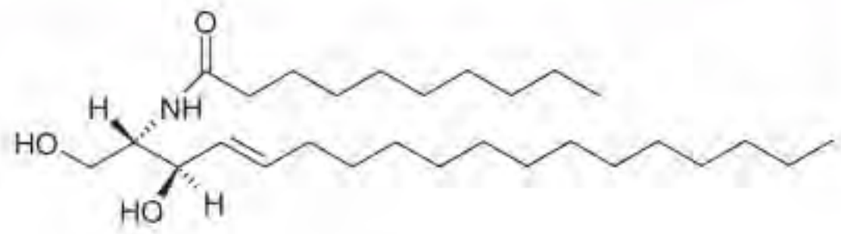


CAS No:	74713-59-0	MW:	425.7
Cat No:	**0388**	Aspect:	White powder
Formula:	$C_{26}H_{51}NO_3$	Purity (TLC, HPLC):	>98%

N-Decanoyl-D-erythro-Sphingosine fully synthetic

Ceramide C10:0 (2S,3R,4E)-2-decanoylaminooctadec-4-ene-1,3-diol

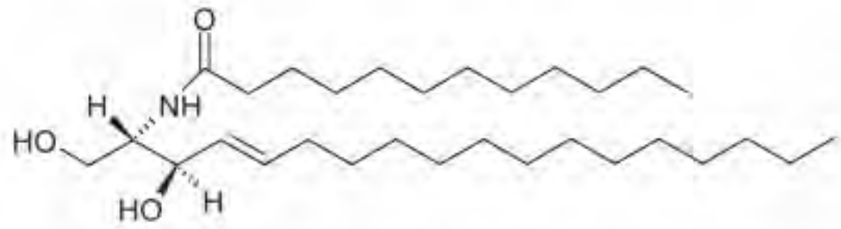
CAS No:	111122-57-7	MW:	453.7
Cat No:	**0399**	Aspect:	White powder
Formula:	$C_{28}H_{55}NO_3$	Purity (TLC, HPLC):	>98%



N-Lauroyl-D-erythro-Sphingosine fully synthetic

Ceramide C12:0 (2S,3R,4E)-2-lauroylaminooctadec-4-ene-1,3-diol

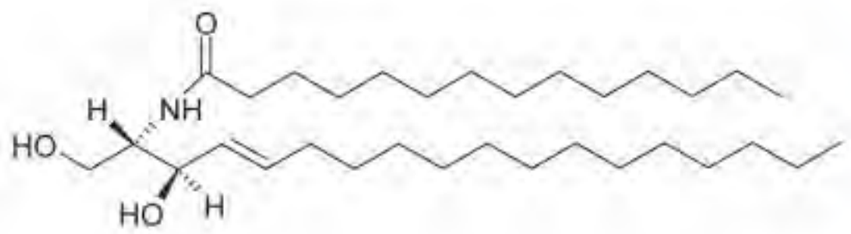
CAS No:	74713-60-3	MW:	481.8
Cat No:	**0398**	Aspect:	White powder
Formula:	$C_{30}H_{59}NO_3$	Purity (TLC, HPLC):	>98%



N-Myristoyl-D-erythro-Sphingosine fully synthetic

Ceramide C14:0 (2S,3R,4E)-2-myristoylaminooctadec-4-ene-1,3-diol

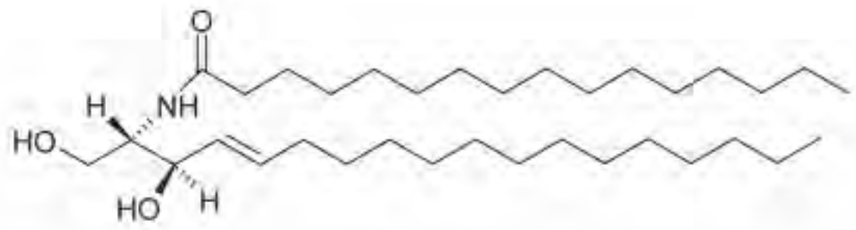
CAS No:	123408-74-2	MW:	509.9
Cat No:	**0394**	Aspect:	White powder
Formula:	$C_{32}H_{63}NO_3$	Purity (TLC, HPLC):	>98%



N-Palmitoyl-D-erythro-Sphingosine fully synthetic

Ceramide C16:0 (2S,3R,4E)-2-palmitoylaminooctadec-4-ene-1,3-diol

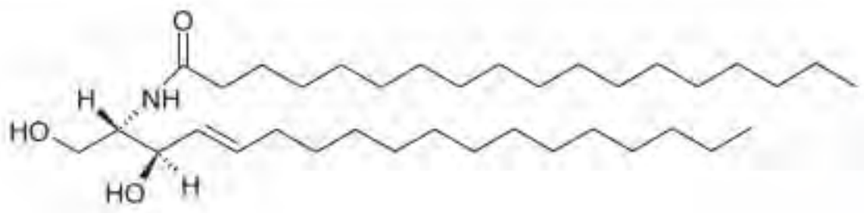
CAS No:	24696-26-2	MW:	537.9
Cat No:	**0395**	Aspect:	White powder
Formula:	$C_{34}H_{67}NO_3$	Purity (TLC, HPLC):	>98%



N-Stearoyl-D-erythro-Sphingosine fully synthetic

Ceramide C18:0 (2S,3R,4E)-2-stearoylaminooctadec-4-ene-1,3-diol

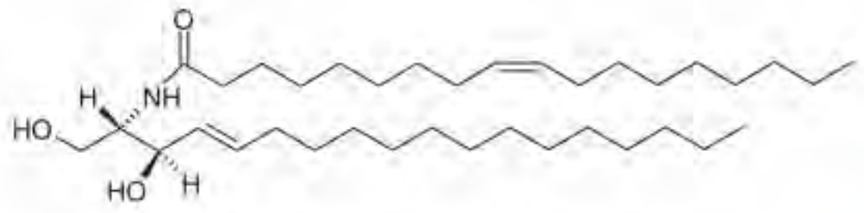
CAS No:	2304-81-6	MW:	566.0
Cat No.	**0396**	Aspect:	White powder
Formula:	$C_{36}H_{71}NO_3$	Purity (TLC, HPLC):	>98%



N-Oleoyl-D-erythro-Sphingosine fully synthetic

Ceramide C18:1 (2S,3R,4E)-2-oleoylaminooctadec-4-ene-1,3-diol

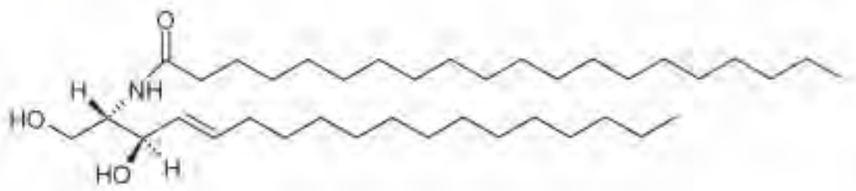
CAS No:	5966-28-9	MW:	564.0
Cat No.	**3103**	Aspect:	White powder
Formula:	$C_{36}H_{69}NO_3$	Purity (TLC, HPLC):	>98%



N-Arachidoyl-D-erythro-Sphingosine fully synthetic

Ceramide C20:0 (2S,3R,4E)-2-arachidoylaminooctadec-4-ene-1,3-diol

CAS No:	123482-93-9	MW:	594.0
Cat No.	**0397**	Aspect:	White powder
Formula:	$C_{38}H_{75}NO_3$	Purity (TLC, HPLC):	>98%

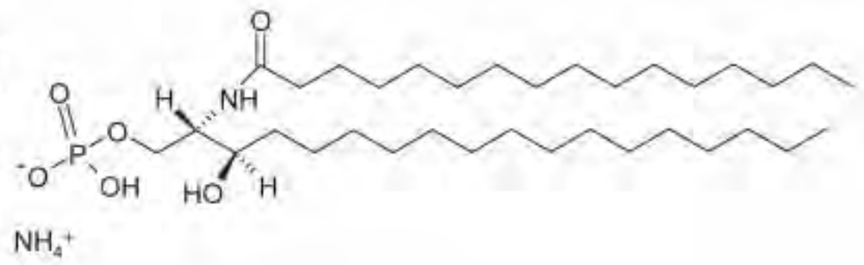


Please enquire for your specific ceramide needs:

- Ceramides with various fatty acids chainlengths
- Ceramides based on Sphingosine with various base chain-lengths
- Ceramides based on Sphinganine with various base chain-lengths
- Ceramides-1-Phosphate derivatives

N-Palmitoyl-D-erythro-Sphingosine-1-phosphate fully synthetic

Ceramide C16:0-1-PO4 (2S,3R,4E)-2-palmitoylaminooctadec-4-ene-1,3-diol-1-phosphate



Cat No: **3095**

Formula: $C_{34}H_{68}NO_6P$

MW: 617.9

Aspect: White powder Off-white to brown solid

Purity (TLC, HPLC): >98%

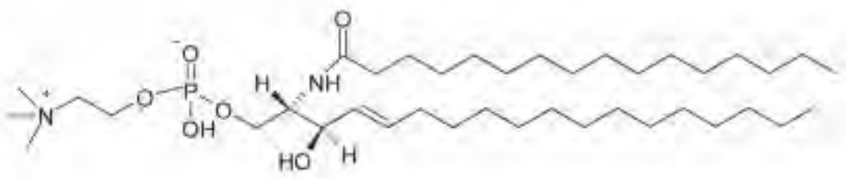
Please inquire for Ceramides-phosphate with various fatty acids chain lengths, and various base-chain lengths.

Sphingomyelin derivatives

Please inquire for Sphingomyelin with various fatty acids chain lengths, and various base-chain lengths.

N-Palmitoyl-D-erythro-Sphingosylphosphorylcholine fully synthetic

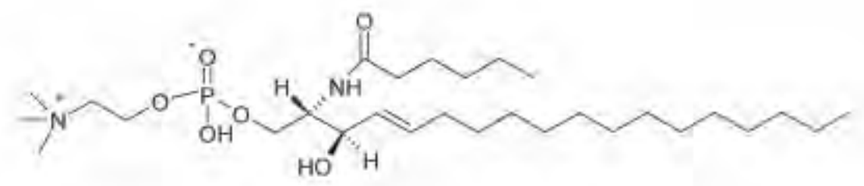
Sphingomyelin Palmitoyl (2S,3R,4E)-2-palmitoylaminooctadec-4-ene-3-hydroxy-1-Phosphocholine



CAS No:	6254-89-3	MS Spectra	ESI+ Corresponds
Cat No.	**1660**	Purity (TLC)	min. 98%
Formula:	$C_{39}H_{79}N_2O_6P$	Purity (HPLC)	min. 98%
MW:	703.0	Impurities by HPLC	max. 2%
Aspect:	White to off-white powder; may contain up to 8% water	Palmitic acid	max. 0.1%
		D-erythro-cis-sphingomyelin	max. 1%
Identity (IR)	Conforms to standard	Peroxide Value	max. 2meq/Kg
NMR H1 spectrum	Conforms to structure	Water (KF)	max. 5%w/w
NMR C13 Spectrum	Conforms to structure	Heavy metals	max. 0.002%

N-Hexanoyl-D-erythro-Sphingosylphosphorylcholine fully synthetic

Sphingomyelin Hexanoyl (2S,3R,4E)-2-hexanoylaminooctadec-4-ene-3-hydroxy-1- Phosphocholine



CAS No: 182493-45-4

Cat No. **1967**

Formula: $C_{29}H_{59}N_2O_6P$

MW: 562.8

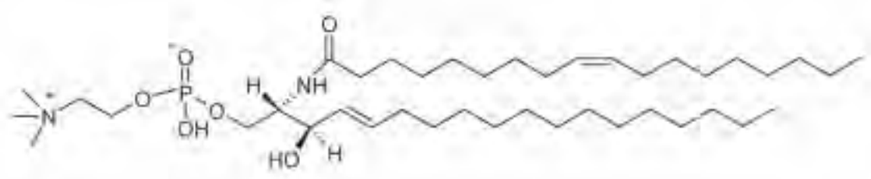
Aspect: white to off-white waxy material

Purity (TLC, HPLC): >98%

Long time storage: may contain up to 8% water

N-Oleoyl-D-erythro-Sphingosylphosphorylcholine fully synthetic

Sphingomyelin Oleoyl (2S,3R,4E)-2-oleoylaminooctadec-4-ene-3-hydroxy-1-Phosphocholine



CAS No: 108392-10-5

Cat No: **1528**

Formula: $C_{41}H_{81}N_2O_6P$

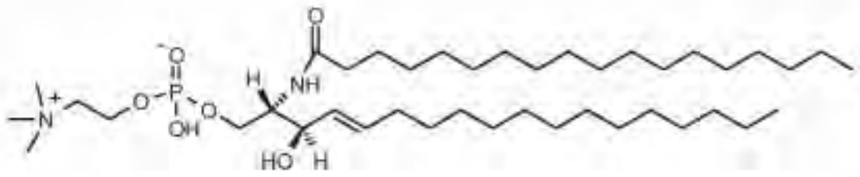
MW: 729.1

Aspect: white to off-white

Purity (TLC, HPLC): >98%

N-Stearoyl-D-erythro-Sphingosylphosphorylcholine fully synthetic

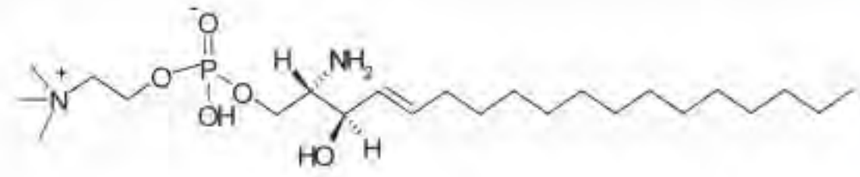
Sphingomyelin Stearoyl (2S,3R,4E)-2-Stearoylaminooctadec-4-ene-3-hydroxy-1-Phosphocholine



CAS No:	58909-84-5	MW:	731.1
Cat No:	**1968**	Aspect:	white to off-white
Formula:	$C_{41}H_{83}N_2O_6P$	Purity (TLC, HPLC):	>98%

D-erythro-Sphingosine Phosphorylcholine fully synthetic Lyso Sphingomyelin

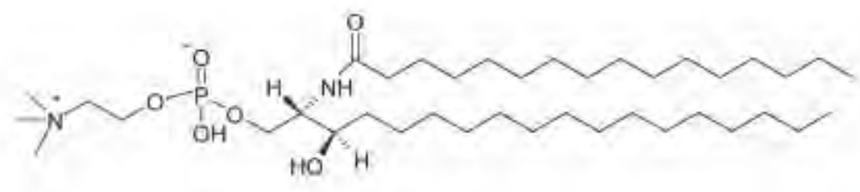
Sphingosyl-phosphorylcholine (2S,3R,4E)-2-aminooctadec-4-ene-3-hydroxy-1-Phosphocholine



CAS No:	1670-26-4	MW:	464.6
Cat No:	**1270**	Aspect:	White powder
Formula:	$C_{23}H_{49}N_2O_5P$	Purity (TLC, HPLC):	>98%

N-Palmitoyl-D-erythro-Dihydro-Sphingosylphosphorylcholine fully synthetic

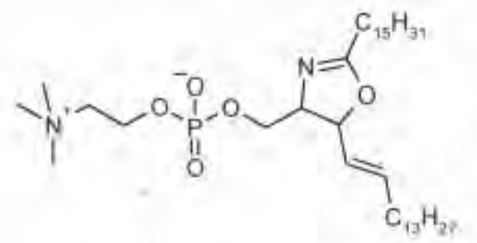
Dihydro-Sphingomyelin-Palmitoyl (2S,3R)-2-palmitoylaminooctadec-3-hydroxy-1-Phosphocholine



Cat No:	**1971**	MW:	705.0
Formula:	$C_{39}H_{81}N_2O_6P$	Purity (TLC, HPLC):	>98%

N-Palmitoyl-L-threo-Oxazoline-Sphingomyelin

4-Oxazolemethanol phosphoryl choline, 4,5-dihydro-5-(1E)-1-pentadecenyl-2-pentadecyl-, (4R,5R)

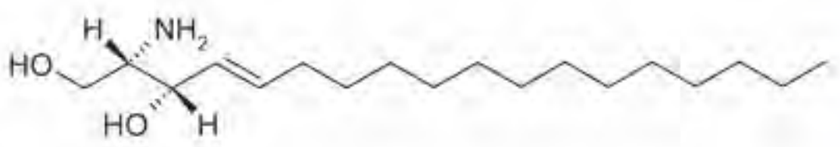


Cat No.	**3109**	MW:	686.0
Formula:	$C_{39}H_{78}N_2O_5P$	Purity (TLC):	>98%

Sphingosine isomers

L-threo-Sphingosine

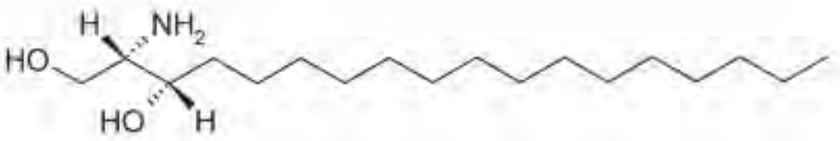
(2S,3S,4E)-2-aminooctadec-4-ene-1,3-diol



CAS No:	25695-95-8	MW:	299.5
Cat No:	**0536**	Aspect:	White powder
Formula:	$C_{18}H_{37}NO_2$	Purity (TLC, HPLC):	>98%

L-threo-Dihydro-Sphingosine

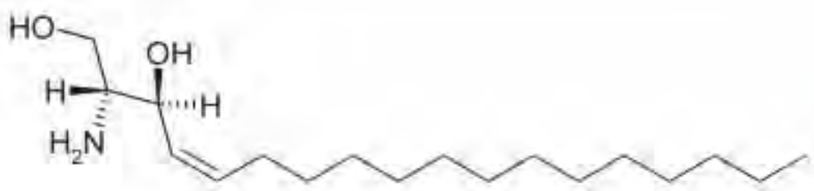
L-threo-Sphinganine Safingol (2S,3S)-2-aminooctadecane-1,3-diol



CAS No:	15639-50-6	MW:	301.5
Cat No:	**3105**	Aspect	White powder
Formula:	$C_{18}H_{39}NO_2$	Purity (TLC, HPLC):	>98%

cis-D-erythro-Sphingosine

(2S,3R,4Z)-2-aminooctadec-4-ene-1,3-diol cis-4-sphingenine



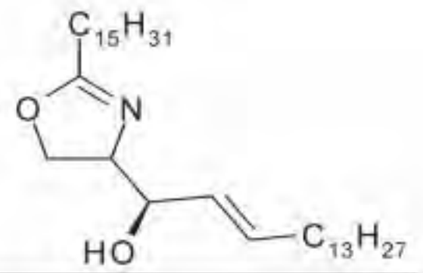
Cat No:	**3106**	Aspect:	White powder
Formula:	$C_{18}H_{37}NO_2$	Purity (TLC, HPLC):	>98%
MW:	299.5		

Please inquire about other Sphingosine isomers

Protected and functionalized sphingosine analogs

4-Oxazolemethanol, 4,5-dihydro-α-1-pentadecenyl-2- pentadecyl

Cat No: 2335



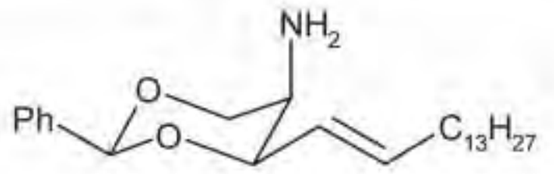
4-Oxazolemethanol, 4,5-dihydro-5-(1E)-1-pentadecenyl-2-pentadecyl-(4R,5R)

CAS No: 2155585-02-7

Cat No: 2336

1,3-Benzylidene Sphingosine

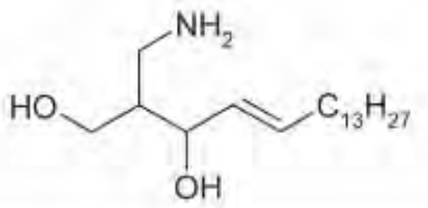
Cat No: 2343



Homo-Sphingosine

(2S,3R,4E)-2-aminomethyl-4-octadecene-1,3, triol Under development

Cat No: 2338



Keto-Sphingosine (3-oxo-sphingosine)

Cat No: 2339

Deuterated Sphingosine

Cat No: 2340

Fluorescent Sphingolipids

Please contact us for **Fluorescent-Sphingolipids** derivatives

CCS - Ceramide Conjugated Spermine

1-PCCS, 3-PCCS mix isomers; N-Palmitoyl Ceramide Conjugated Spermine fully synthetic

N-Palmitoyl sphingosyl-1-spermine, N-Palmitoyl sphingosyl 3-spermine mix isomers

Cat No: 1966

Formula: $C_{45}H_{91}N_5O_4xCH_3COOHxH_2O$

MW (free form): 767.7

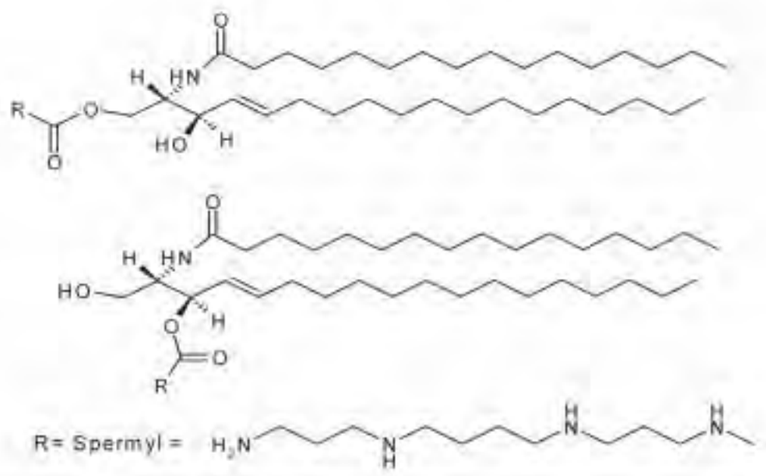
Aspect: White to off white powder

Purity (TLC, HPLC): >98%

Isomeric ratio: 1-PCCS/3-PCCS : approx. 75/25

Acetate content: Approx. 3 moles

Water content: Approx. 1.5%



1-PCCS; N-Palmitoyl Ceramide Conjugated Spermine fully synthetic

N-Palmitoyl sphingosyl-1-spermine

Cat No: 1986

Formula: $C_{45}H_{91}N_5O_4xCH_3COOHxH_2O$

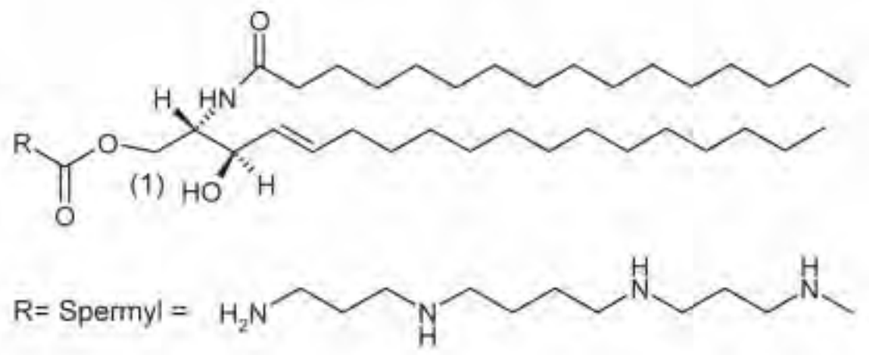
MW (free form): 767.7

Aspect: White to off white powder

Purity (TLC, HPLC): >98%

Acetate content: Approx. 3 moles

Water content: Approx. 1.5%



3-PCCS; N-Palmitoyl Ceramide Conjugated Spermine fully synthetic

N-Palmitoyl sphingosyl-3-spermine

Cat No: 1987

Formula: $C_{45}H_{91}N_5O_4xCH_3COOHxH_2O$

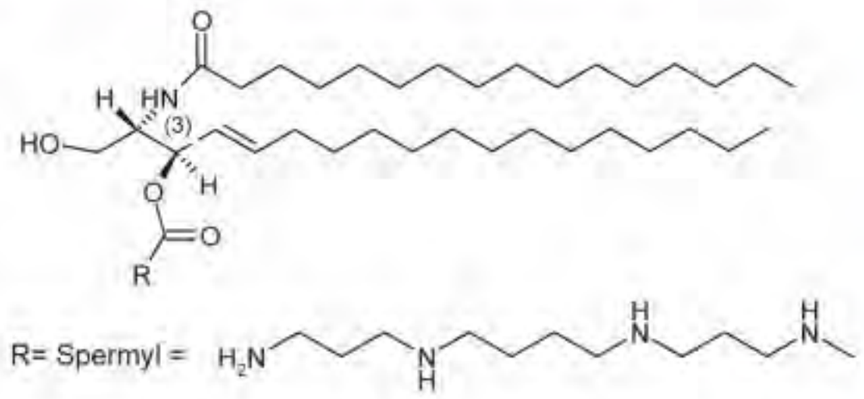
MW (free form): 767.7

Aspect: White to off white powder

Purity (TLC, HPLC): >98%

Acetate content: Approx. 3 moles

Water content: Approx. 1.5%



1-SCCS, 3-SCCS mix isomers; N-Stearoyl Ceramide Conjugated Spermine fully synthetic

N-Stearoyl sphingosyl-1-spermine, N-Stearoyl sphingosyl 3-spermine mix isomers

Cat No: 1997

Formula: $C_{47}H_{95}N_5O_4xCH_3COOHxH_2O$

MW (free form): 795

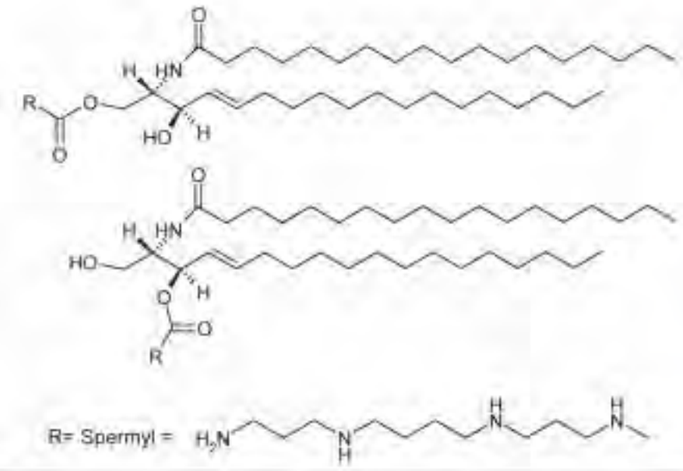
Aspect: White to off white powder

Purity (TLC, HPLC): >98%

Isomeric ratio: 1-SCCS/3-SCCS : approx. 75/25

Acetate content: Approx. 3 moles

Water content: Approx. 1.5%



Available also as pure isomers, please inquire

1-OCCS, 3-OCCS mix isomers; N-Oleoyl Ceramide Conjugated Spermine fully synthetic

N-Oleoyl sphingosyl-1-spermine, N-Oleoyl sphingosyl 3-spermine mix isomers

Cat No: 1534

Formula: $C_{47}H_{93}N_5O_4xCH_3COOHxH_2O$

MW (free form): 793

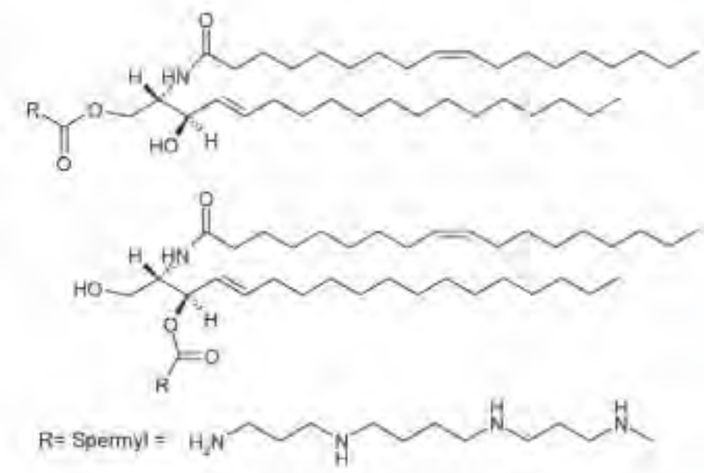
Aspect: White to off white powder

Purity (TLC, HPLC): >98%

Isomeric ratio: 1-OCCS/3-OCCS : approx. 75/25

Acetate content: Approx. 3 moles

Water content: Approx. 1.5%



Available also as pure isomers, please inquire

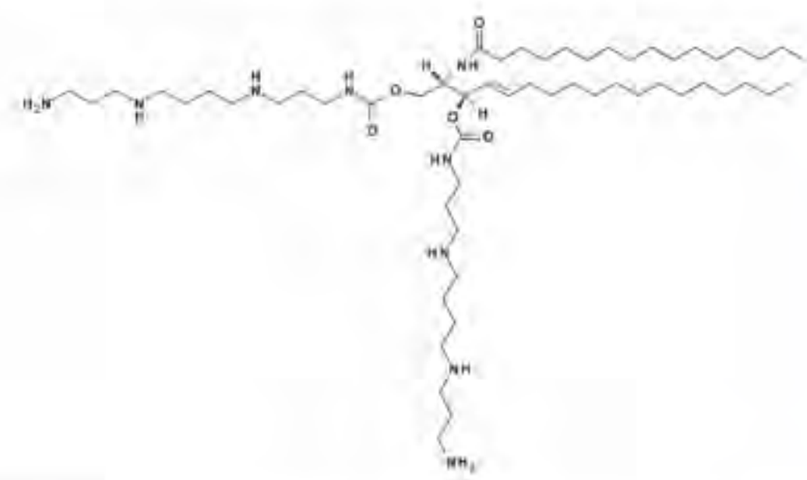
Additional CCS analogs are available- Please contact us

DSCCS (Di-spermyl-CCS)

Cat No: 1970

Formula: $C_{56}H_{115}N_9O_5xCH_3COOHxH_2O$

MW (free form): 994.58



Glycosylated Sphingosine and derivatives

Glucosyl(β) Sphingosine fully synthetic

D-Glucosyl-β1-1'-D-erythro-Sphingosine

CAS No: 52050-17-6

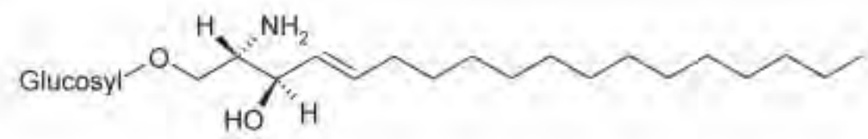
Cat No: 0564

Formula: $C_{24}H_{47}NO_7$

MW (free form): 461.6

Aspect: White to off white powder

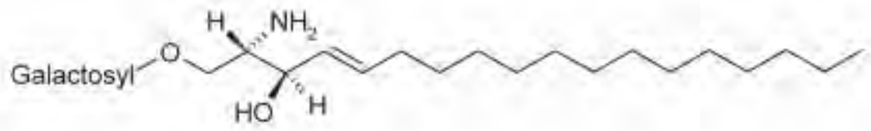
Purity (TLC, HPLC)>98%



Glycosylated ceramides with various chainlengths are available, please inquire.

Galactosyl(β) Sphingosine fully synthetic

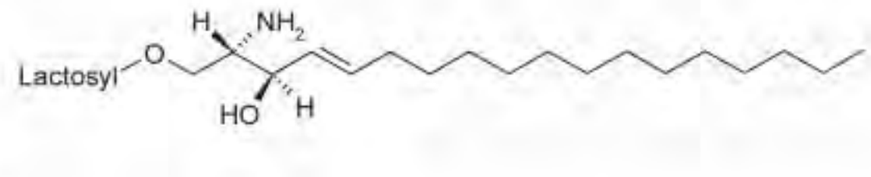
D- Galactosyl-β1-1'-D-erythro-Sphingosine



CAS No:	2238-90-6	MW (free form):	461.6
Cat No:	**0700**	Aspect:	White to off white powder
Formula:	$C_{24}H_{47}NO_7$	Purity (TLC, HPLC)	>98%

Lactosyl(β) Sphingosine fully synthetic

D- Lactosyl-β1-1'-D-erythro-Sphingosine

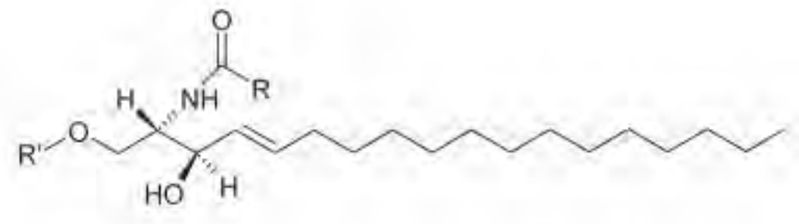


CAS No:	109785-20-8	MW (free form):	623.8
Cat No:	**1231**	Aspect:	White to off white powder
Formula:	$C_{30}H_{57}O_{12}$	Purity (TLC, HPLC)	>98%

Glycosylated ceramides

Purity (TLC, HPLC)>98%

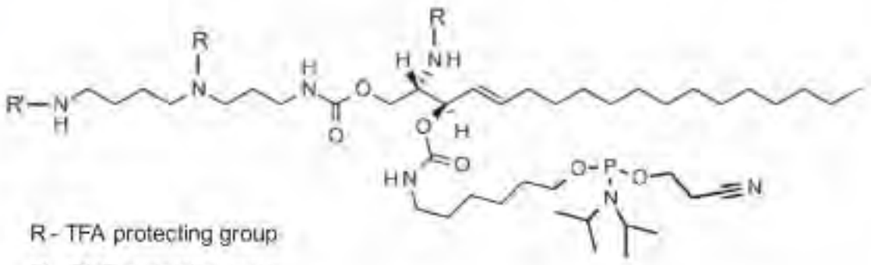
R'= Glucosyl / Galactosyl / Lactosyl
R= Fatty acid



Sphingolipid phosphoramidites

Sphingolipid-Spermidine phosphoramidite

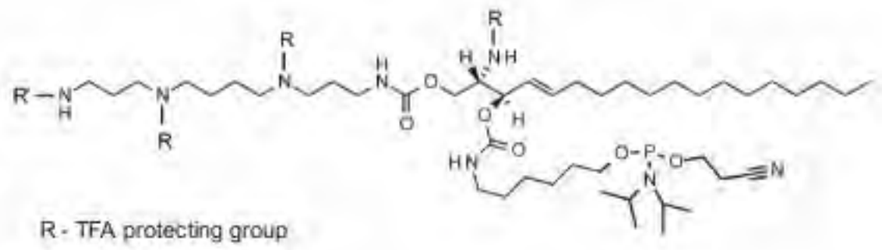
Cat. No:	**4596**	Assay (HPLC)	min. 90%
Formula:	$C_{65}H_{96}F_6N_7O_9P$	NMR H1 spectrum	Conforms with structure
Molecular Weight:	1264.46	NMR P31 spectrum	Conforms with structure
Appearance	Colorless to light yellow oil		



R - TFA protecting group
R' - DMT protecting group

Sphingolipid-Spermine phosphoramidite

Cat. No:	**4595**	Assay (HPLC)	min. 90%
Formula:	$C_{71}H_{104}F_9N_8O_{10}P$	NMR H1 spectrum	Conforms with structure
Molecular Weight:	1431.6	NMR P31 spectrum	Conforms with structure
Appearance	Colorless to light yellow oil		



R - TFA protecting group
R' - DMT protecting group

Please inquire about different spingolipid structure or polyamine side chain.

Alphabetical Index

ALPHABETICAL INDEX

Alphabetical Index

Alphabetical Index

ALPHABETICAL INDEX

Alphabetical Index

Alphabetical Index

ALPHABETICAL INDEX

Alphabetical Index

Alphabetical Index

ALPHABETICAL INDEX

Alphabetical Index

Alphabetical Index

ALPHABETICAL INDEX

Alphabetical Index

Alphabetical Index

ALPHABETICAL INDEX

Alphabetical Index

Alphabetical Index

ALPHABETICAL INDEX

Alphabetical Index

Alphabetical Index

Alphabetical Index

Alphabetical Index

ALPHABETICAL INDEX

Alphabetical Index

Alphabetical Index

ALPHABETICAL INDEX

Alphabetical Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No.	Product	CAS No.	Page No.
0484	1,4-Dioxane (unstabilized)	123-91-1	157
0487	Diethanolamine	111-42-2	139
0490	N,N'-Disuccinimidyl carbonate	74124-79-1	159
0500	D-erythro-Sphingosine C18	123-78-4	166
0501	D-erythro-Dihydrosphingosine	764-22-7	166
0502	D-erythro-Sphingosine C17	6918-48-5	166
0503	N,N-Dimethyl-D-erythro-Sphingosine	119567-63-4	147
0505	N,N,N-Trimethyl-D-erythro-Sphingosine sulphomethylate salt	133561-52-1	467
0506	D-erythro-Sphingosine C20	6818-49-6	167
0511	(S)-(-)-Ethyl lactate	687-47-8	183
0513	EDTA Tetrasodium salt dihydrate	10378-23-1	165
0514	EDTA Disodium salt dihydrate	6381-92-6	164
0516	2-Octyloxyethanol	10020-43-6	259
0517	2-Ethoxyethanol	110-80-5	177
0518	Ethylene glycol	107-21-1	182
0519	2-Ethoxyethyl acetate	111-15-9	177
0521	Ethanol 96%	64-17-5	172
0522	Ethanol 70%	64-17-5	174
0525	Ethanol absolute (Dehydrated)	64-17-5	168
0528	Diethylether (stab./BHT)	60-29-7	140
0529	Diethylether (stab./Ethanol)	60-29-7	142
0530	Ethylenediamine	107-15-3	182
0531	Diethylether (unstabilized)	60-29-7	142
0533	EDTA Tetrasodium salt tetrahydrate	13235-36-4	165
0536	L-threo-Sphingosine (d18:1)	25695-95-8	336
0538	Ethyl-(R)-(+)-2-Methoxypropionate	40105-20-2	184
0539	Ethyl-(S)-(-)-2-Methoxypropionate	41918-08-5	184
0540	Ethyl acetate	141-78-6	178
0541	Ethidium bromide 1%		177
0542	Ethanol 96% Denatured		174
0543	Ethidium bromide	1239-45-8	176
0545	Ethidium bromide 0.02%		177
0548	2'-deoxyInosine phosphoramidite	141684-35-7	129
0552	3'-Glyceryl-CPG-500A		378
0553	3'-Glyceryl-CPG-1000A		378
0554	2'-deoxyUridine phosphoramidite		129
0557	Ethanol reagent alcohol (Denatured)		172
0564	Glucosyl-(β)-Sphingosine	52050-17-6	200
0565	Dodecane 98%+	112-40-3	162
0580	Ethanol 96% Denatured blue		174
0597	Ethanol 70% Denatured		175
0601	Fmoc-Arg(Pbf)-OH	154445-77-9	188
0603	Fmoc-Asp(OtBu)-OH	71989-14-5	188
0604	Fmoc-Cys(Trt)-OH	103213-32-7	188

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

Cat. No. Index

CAS No. Index

CAS No. Index

CAS No. Index

CAS No. Index

CAS No. Index

CAS No. Index

CAS No. Index

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