

Chemical Safety Data Sheet MSDS / SDS

9-Hexadecenoic acid, 1,1',1'',1'''-[(2R,14R)-5,8,11-trihydroxy-5,11-dioxido-4,6,10,12-tetraoxa-5,11-diophosphapentadecane-1,2,14,15-tetrayl] ester, sodium salt (1:2), (9Z,9'Z,9''Z,9'''Z)-

Revision Date:2026-03-20 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking**Product identifier**

Product name : 9-Hexadecenoic acid, 1,1',1'',1'''-[(2R,14R)-5,8,11-trihydroxy-5,11-dioxido-4,6,10,12-tetraoxa-5,11-diophosphapentadecane-1,2,14,15-tetrayl] ester, sodium salt (1:2), (9Z,9'Z,9''Z,9'''Z)-

CBnumber : CB310959935

CAS : 2260669-34-7

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.

Uses advised against : none

Company Identification

Company : Chemicalbook

Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing

Telephone : 010-86108875

SECTION 2: Hazards identification**GHS Label elements, including precautionary statements**

Symbol(GHS) : No data available

Signal word : No data available

Precautionary statements

No data available

Hazard statements

No data available

SECTION 3: Composition/information on ingredients**Substance**

Product name : 9-Hexadecenoic acid, 1,1',1'',1'''-[(2R,14R)-5,8,11-trihydroxy-5,11-dioxido-4,6,10,12-tetraoxa-5,11-diophosphapentadecane-1,2,14,15-tetrayl] ester, sodium salt (1:2), (9Z,9'Z,9''Z,9'''Z)-

CAS : 2260669-34-7
MF : C73H135NaO17P2
MW : 1369.8

SECTION 4: First aid measures

Description of first aid measures

General information

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact

Immediately wash with water and soap and rinse thoroughly.

After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing

Immediately call a doctor.

Information for doctor

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

FIRE-FIGHTING MEASURES

Fire-fighting measure	Details
Suitable extinguishing agents	Use fire fighting measures that suit the environment. A solid water stream may be inefficient.
Special hazards arising from the substance or mixture	67-56-1During heating or in case of fire poisonous gases are produced.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Environmental precautions

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Protective Action Criteria for Chemicals

PAC-1

67-66-3 Chloroform 2 ppm

PAC-2

67-66-3 Chloroform 64 ppm

PAC-3

67-66-3 Chloroform 3,200 ppm

67-66-3 Chloroform

3,200 ppm

SECTION 7: Handling and storage

Handling

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Information about protection against explosions and fires

Keep respiratory protective device available.

Conditions for safe storage, including any incompatibilities

Storage

Store in accordance with information listed on the product insert.

Requirements to be met by storerooms and receptacles

No special requirements.

Information about storage in one common storage facility

Not required.

Further information about storage conditions

Keep receptacle tightly sealed.

Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical systems

No further data; see section 7.

Control parameters

Components with limit values that require monitoring at the workplace:

67-66-3 Chloroform	
PEL	Ceiling limit value: 240 mg/m ³ , 50 ppm
REL	Short-term value: 9.78* mg/m ³ , 2* ppm 60-min; See Pocket Guide App. A
TLV	Long-term value: 10 ppm A3

Additional information

The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment

General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

Breathing equipment

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection

Safety glasses

Tightly sealed goggles

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance

Physical State

Liquid

Color

Not determined.

Odor

Pleasant

Structural Formula

C₇₃H₁₃₂O₁₇P₂ 2Na

Molecular Weight

1389.8 g/mol

Odor Threshold

Not determined.

Formulation

A solution in chloroform

pH

Not determined.

Change in condition**Melting point/Melting range**

-63.5 °C (-82.3 °F)

Boiling point/Boiling range

61 °C (141.8 °F)

Flash point

Not applicable.

Flammability (solid,gas)

Not applicable.

Auto igniting

982 °C (1,799.6 °F)

Decomposition temperature

Not determined.

Ignition temperature

Product is not selfigniting.

Danger of explosion

Product does not present an explosion hazard.

Explosion limits

Lower: Not determined.

Upper: Not determined.

Vapor Pressure at 20 °C (68 °F)

211 hPa (158.3 mm Hg)

Density at 20 °C (68 °F)

1.48 g/cm³ (12.3506 lbs/gal)

Relative Density

Not determined.

Vapor Density

Not determined.

Evaporation Rate

Not determined.

Solubility in / Miscibility with

Chloroform: Soluble

Water at 20 °C (68 °F)

8 g/l

Partition coefficient (n-octanol/water)

Not determined.

Viscosity

Dynamic

at 20 °C (68 °F): 0.56 mPas

Kinematic

Not determined.

VOC content

0.00 % 0.0 g/l / 0.00 lb/gal

Solids content

0.5 %

Other information

No information available

SECTION 10: Stability and reactivity

Reactivity

No further relevant information available.

Chemical stability

Thermal decomposition / conditions to be avoided

No decomposition if used according to specifications.

Possibility of hazardous reactions

No dangerous reactions known.

Conditions to avoid

No further relevant information available.

Incompatible materials

No further relevant information available.

Hazardous decomposition products

No dangerous decomposition products known.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD/LC50 values that are relevant for classification:

Substance / Estimate	Route	Endpoint	Value
ATE (Acute Toxicity Estimate)	Oral	LD50	913 mg/kg (rat)
ATE (Acute Toxicity Estimate)	Inhalative	LC50/4 h	3.12 mg/l (rat)
67-66-3 Chloroform	Oral	LD50	908 mg/kg (rat) OECD Test Guideline 401
67-66-3 Chloroform	Inhalative	LC50/4 h	3.1 mg/l (rat) Expert judgment

Primary irritant effect

on the skin

Irritant to skin and mucous membranes.

on the eye

Irritating effect.

Sensitization

No sensitizing effects known.

Additional toxicological information

The product shows the following dangers according to internally approved calculation methods for preparations

Toxic

Harmful

Irritant

Carcinogenic categories

IARC (International Agency for Research on Cancer)

67-66-3 Chloroform 2B

NTP (National Toxicology Program)

67-66-3 Chloroform R

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

SECTION 12: Ecological information

Toxicity

Aquatic toxicity

No further relevant information available.

Persistence and degradability

No further relevant information available.

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

Other adverse effects

No further relevant information available.

SECTION 13: Disposal considerations

Waste treatment methods

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings

Recommendation

Disposal must be made according to official regulations.

Recommended cleansing agent

Water, if necessary with cleansing agents.

SECTION 14: Transport information

UN-Number

DOT, IMDG, IATA UN1888

UN proper shipping name

DOT, IATA Chloroform solution

IMDG CHLOROFORM solution

Transport hazard class(es)

DOT

Class: 6.1 Toxic substances

Label: 6.1

IMDG, IATA

Class: 6.1 Toxic substances

Label: 6.1

Packing group

DOT, IMDG, IATA III

Environmental hazards

Not applicable.

Special precautions for user

Warning: Toxic substances

Hazard identification number (Kemler code)

60

EMS Number

F-A,S-A

Segregation groups

(SGG10) Liquid halogenated hydrocarbons

Stowage Category

A

Stowage Code

SW2 Clear of living quarters.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Transport/Additional information

DOT:**Quantity limitations**

On passenger aircraft/rail: 60 L

On cargo aircraft only: 220 L

IMDG:**Limited quantities (LQ)**

5L

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

IATA:**Remarks**

When sold in quantities of less than or equal to 1 mL, or 1 g, with an Excepted Quantity Code of

E1, E2, E4, or E5, this item meets the De Minimis

Quantities exemption, per IATA 2.6.10.

Therefore packaging does not have to be labeled as

Dangerous Goods/Excepted Quantity.

UN "Model Regulation"

UN 1888 CHLOROFORM SOLUTION, 6.1, III

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

No further relevant information available.

Sara

Section 355 (extremely hazardous substances):	67-66-3 Chloroform
Section 313 (Specific toxic chemical listings):	67-66-3 Chloroform
TSCA (Toxic Substances Control Act):	67-66-3 Chloroform ACTIVE
Hazardous Air Pollutants 67-66-3 Chloroform	

Proposition 65

Chemicals known to cause cancer:	67-66-3 Chloroform
Chemicals known to cause reproductive toxicity for females:	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for males:	None of the ingredients is listed.

Chemicals known to cause developmental toxicity:	67-66-3 Chloroform
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Carcinogenic categories

EPA (Environmental Protection Agency):

67-66-3

Chloroform B2, L, NL

TLV (Threshold Limit Value)

67-66-3

Chloroform A3

67-66-3

Chloroform

Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Acute Toxicity - Inhalation 3: Acute toxicity – Category 3

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Carcinogenicity 2: Carcinogenicity – Category 2

Toxic to Reproduction 2: Reproductive toxicity – Category 2

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

Specific Target Organ Toxicity - Repeated Exposure 1: Specific target organ toxicity (repeated exposure) – Category 1

Disclaimer:

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.