

Chemical Safety Data Sheet MSDS / SDS

3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecanesulphonic acid

Revision Date:2026-05-31 Revision Number:1

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

Product name	: 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecanesulphonic acid
CBnumber	: CB2888622
CAS	: 39108-34-4
EINECS Number	: 254-295-8
Synonyms	: 1H,1H,2H,2H-Perfluorodecanesulfonic acid,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecanesulphonic acid

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)



Signal word

Danger

Precautionary statements

P501 Dispose of contents/container to.....

P330 Rinse mouth.

P301+P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.

P270 Do not eat, drink or smoke when using this product.

P264 Wash skin thoroughly after handling.

P310 Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P501 Dispose of contents/container to.....

P314 Get medical advice/attention if you feel unwell.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

Hazard statements

H373 May cause damage to organs through prolonged or repeated exposure

H302 Harmful if swallowed

H318 Causes serious eye damage

SECTION 3: Composition/information on ingredients

Substance

Product name	: 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecane-1-sulphonic acid
Synonyms	: 1H,1H,2H,2H-Perfluorodecane-1-sulfonic acid,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecane-1-sulphonic acid
CAS	: 39108-34-4
EC number	: 254-295-8
MF	: C ₁₀ H ₅ F ₁₇ O ₃ S
MW	: 528.18

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.

After inhalation

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. Then consult a doctor.

After swallowing

Immediately call a doctor.

Drink copious amounts of water and provide fresh air. Immediately call a 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	No further relevant information available.
Protective equipment	No special measures required.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Environmental precautions

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

Methods and material for containment and cleaning up

Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

Protective Action Criteria for Chemicals

PAC-1

Substance is not listed.

PAC-2

Substance is not listed.

PAC-3

Substance is not listed.

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.

SECTION 7: Handling and storage

Precautions for safe handling

Thorough dedusting.

Information about protection against explosions and fires

No special measures required.

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

Control parameters

Components with limit values that require monitoring at the workplace

Not required.

Additional information

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

Exposure controls

Appropriate engineering controls

No further data; see section 7.

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.

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.

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

Tightly sealed goggles

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Physical State

Solid

Color

Not determined.

Odor

Characteristic

Structural Formula

C₁₀H₅F₁₇O₃S

Molecular Weight

528.2 g/mol

Storage Buffer

Odor Threshold

Not determined.

Formulation**Melting point/Melting range**

Undetermined.

Boiling point/Boiling range

Undetermined.

Flammability

Product is not flammable.

Explosion limits

Lower: Not determined.

Upper: Not determined.

Flash point

Not applicable.

Decomposition temperature

Not determined.

pH

Not applicable.

Viscosity**Kinematic**

Not applicable.

SOLUBILITY

DMF: 10 mg/ml; DMSO: 10 mg/ml; Ethanol: 10 mg/ml

Dynamic

Not applicable.

Solubility in / Miscibility with

DMF: 10 mg/ml

DMSO: 10 mg/ml

Ethanol: 10 mg/ml

Water

Not determined.

Partition coefficient (n-octanol/water)

Not determined.

Vapor Pressure

Not applicable.

Density

1.730±0.06 g/cm³(Predicted)

Relative Density

1.730±0.06 g/cm³(Predicted)

Vapor Density

Not applicable.

Particle characteristics

Not determined.

Other information**Appearance****Form**

Solid

Important information on protection of health and environment, and on safety.**Ignition temperature**

Not determined.

Danger of explosion

Product does not present an explosion hazard.

Change in condition**Evaporation Rate**

Not applicable.

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

Primary irritant effect

on the skin

Strong caustic effect on skin and mucous membranes.

on the eye

Sensitization

No sensitizing effects known.

Additional toxicological information

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Interactive effects

No interactive effects between components are known.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

Substance is not listed.

NTP (National Toxicology Program)

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

Alternative sources for toxicological information

No non-standard sources for toxicological information where used.

SECTION 12: Ecological information

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

Other adverse effects

Additional ecological information

General notes

Water hazard class 1 (Self-assessment) slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

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.

SECTION 14: Transport information

UN-Number

DOT, IMDG, IATA UN1759

UN proper shipping name

DOT Corrosive solids, n.o.s. (1H,1H,2H,2H-

Perfluorodecanesulfonic Acid)

IMDG CORROSIVE SOLID, N.O.S. (1H,1H,2H,2H-

Perfluorodecanesulfonic Acid)

IATA Corrosive solid, n.o.s. (1H,1H,2H,2H-

Perfluorodecanesulfonic Acid)

Transport hazard class(es)

DOT

Class: 8 Corrosive substances

Label: 8

IMDG, IATA

Class: 8 Corrosive substances

Label: 8

Packing group

DOT, IMDG, IATA I

Environmental hazards

Not applicable.

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: 1 kg

On cargo aircraft only: 25 kg

IMDG:

Limited quantities (LQ)

0

Excepted quantities (EQ)

Code: E0

Not permitted as Excepted Quantity

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.

Special precautions for user

Warning: Corrosive substances

Hazard identification number (Kemler code)

88

EMS Number

F-A, S-B

Stowage Category

B

UN "Model Regulation"

UN 1759 CORROSIVE SOLID, N.O.S. (1H,1H,2H,2H-
PERFLUORODECANESULFONIC ACID), 8, I

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):	Substance is not listed.
Section 313 (Specific toxic chemical listings):	Substance is not listed.
TSCA (Toxic Substances Control Act):	Substance is not listed.
Hazardous Air Pollutants:	Substance is not listed.
Chemicals known to cause cancer:	Substance is not listed.
Chemicals known to cause reproductive toxicity for females:	Substance is not listed.
Chemicals known to cause reproductive toxicity for males:	Substance is not listed.
Chemicals known to cause developmental toxicity:	Substance is not listed.

Carcinogenic categories

EPA (Environmental Protection Agency):	Substance is not listed.
--	--------------------------

TLV (Threshold Limit Value)

Substance is not listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

Chemical safety assessment

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

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

NFPA: National Fire Protection Association (USA)

HMS: Hazardous Materials Identification System (USA)

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

Skin corrosion 1A: Skin corrosion/irritation – Category 1A

Eye damage 1: Serious eye damage/eye irritation – Category 1

Specific target organ toxicity (single exposure) 3: Specific target organ toxicity (single exposure) – Category 3

Specific target organ toxicity (repeated exposure) 2: Specific target organ toxicity (repeated exposure) – Category 2

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.