

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 3.0 Revision Date 08.06.2009

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : (3-Mercaptopropyl)trimethoxysilane

Product Number : 175617

Brand : Aldrich

Company : Sigma-Aldrich
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2. HAZARDS IDENTIFICATION

Risk advice to man and the environment

Harmful if swallowed. May cause sensitization by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 3-(Trimethoxysilyl)-1-propanethiol

Formula : $C_6H_{16}O_3SSi$

Molecular Weight : 196,34 g/mol

| CAS-No. | EC-No. | Index-No. | Classification | Concentration |
|---|-----------|-----------|---------------------------|---------------|
| 3-Trimethoxysilylpropane-1-thiol | | | | |
| 4420-74-0 | 224-588-5 | - | Xn, N, R22 - R43 - R51/53 | - |

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods for cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling

Avoid inhalation of vapour or mist.

Normal measures for preventive fire protection.

Storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

| | |
|--------|------------|
| Form | liquid |
| Colour | colourless |

Odour

Stench.

Safety data

| | |
|-----------------------|---------------------|
| pH | no data available |
| Melting point | no data available |
| Boiling point | 213 - 215 °C |
| Flash point | 96 °C - closed cup |
| Ignition temperature | no data available |
| Lower explosion limit | no data available |
| Upper explosion limit | no data available |
| Vapour pressure | < 7 hPa at 20 °C |
| Density | 1,057 g/mL at 25 °C |
| Water solubility | no data available |

10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions.

Materials to avoid

Strong oxidizing agents, Strong acids, Alcohols

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides, silicon oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - rat - 2.990 mg/kg

LD50 Dermal - rabbit - 5.983 mg/kg

Irritation and corrosion

Sensitisation

May cause sensitization by skin contact.

The preceding data, or interpretation of data, was determined using Quantitative Structure Activity Relationship (QSAR) modeling. Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

Chronic exposure

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Signs and Symptoms of Exposure

Nausea, Headache, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Potential Health Effects

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

Skin

May be harmful if absorbed through skin. May cause skin irritation.

Eyes
Ingestion

May cause eye irritation.
Harmful if swallowed.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability

Ecotoxicity effects

Toxicity to fish LC50 - Brachydanio rerio (zebra fish) - 439 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates. EC50 - Daphnia magna (Water flea) - 6,7 mg/l - 48 h

Toxicity to algae EC50 - Scenedesmus subspicatus - 267 mg/l - 72 h

Further information on ecology

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID

UN-Number: 3082 Class: 9

Packing group: III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (3-Trimethoxysilylpropane-1-thiol)

IMDG

UN-Number: 3082 Class: 9

Packing group: III

EMS-No: F-A, S-F

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (3-Trimethoxysilylpropane-1-thiol)

Marine pollutant: No

IATA

UN-Number: 3334 Class: 9

Proper shipping name: Aviation regulated liquid n.o.s. (3-Trimethoxysilylpropane-1-thiol)

15. REGULATORY INFORMATION

Labelling according to EC Directives

Hazard symbols

Xn

Harmful

N

Dangerous for the environment

R-phrases

R22

Harmful if swallowed.

R43

May cause sensitization by skin contact.

R51/53

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

environment.

S-phrase(s)

S24/25

Avoid contact with skin and eyes.

S36/37

Wear suitable protective clothing and gloves.

S61

Avoid release to the environment. Refer to special instructions/ Safety data sheets.

16. OTHER INFORMATION

Further information

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