

## SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006

Version 9.0 Revision Date 15.02.2017

### Section 1 - Identification of the material and supplier

#### 1.1 Product identifier

Product name 3-Mercaptopropyltrimethoxysilane  
Product Number CG-S313  
CAS No. 4420-74-0

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

Industrial.  
Intermediate chemical

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer: Qufu Chenguang Chemical Co.,Ltd  
Address: Xizou county, Qufu, Shandong, 273100, China  
Telephone: +86 537 4631088  
Fax: +86 537 4556878  
E-Mail: sales@silanechem.com

#### 1.4 Emergency telephone number

Emergency response service: +86 537 4631088

### Section 2 - Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute toxicity, Oral (Category 4)  
Acute toxicity, Dermal (Category 5)  
Skin sensitisation (Category 1)  
Acute aquatic toxicity (Category 2)  
Chronic aquatic toxicity (Category 2)

##### Classification according to EU Directives 67/548/EEC or 1999/45/EC

Flammable.  
Irritating to eyes.

#### 2.2 Label elements

##### Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal word :

Warning

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**Hazard statement(s)**

H302	Harmful if swallowed.
H313	May be harmful in contact with skin.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.

**Precautionary statement(s)**

P273	Avoid release to the environment.
P280	Wear protective gloves.

**2.3 Other hazards** - none**Section 3 - Composition/information on ingredients****3.1 Substances**

Synonyms:	<b>3-Trimethoxysilylpropane-1-thiol</b>
Formula	C <sub>6</sub> H <sub>16</sub> O <sub>3</sub> SSi
Molecular Weight	196.34 g/mol

Component	Concentration
3-Mercaptopropyltrimethoxysilane	≈98.5%
CAS-No. 4420-74-0 EC-No. 224-588-5	-
Methanol	≤0.5%
Polysiloxane	≤1%

**3.2 Mixtures**

Not Relevant

**Section 4 -First-aid measures****4.1 Description of 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**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse

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mouth with water. Consult a physician.

## Section 5 - Firefighting Measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

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

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides, silicon oxides

### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

### 5.4 Further information

Use water spray to cool unopened containers.

## Section 6 - Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

## Section 7 - Handling and Storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Normal measures for preventive fire protection.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Moisture sensitive.

### 7.3 Specific end uses

no data available

## Section 8 - Exposure Controls / Personal Protection

### 8.1 Control parameters

#### Components with workplace control parameters

### 8.2 Exposure controls

#### Appropriate engineering controls

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

#### Personal protective equipment

##### Eye/face protection

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Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### **Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal Technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### **Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be Selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **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).

## **Section 9 - Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

Appearance	Colourless liquid
Odour	Stench.
Odour Threshold	no data available
pH	no data available
Melting point/freezing point	no data available
Initial boiling point and boiling range	213-215 °C - lit.
Flash point	96 °C - closed cup
Evaporation rate	no data available
Flammability (solid, gas)	no data available
Upper/lower flammability or explosive limits	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	1.057 g/cm <sup>3</sup> at 25 °C
Water solubility	no data available
Partition coefficient: noctanol/water	no data available
Autoignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available

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Explosive properties no data available  
Oxidizing properties no data available

## 9.2 Other safety information

no data available

## Section 10 - Stability and Reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Heat, flames and sparks.

### 10.5 Incompatible materials

Strong acids, Strong oxidizing agents, Water, Bases, Alcohols, Peroxides

### 10.6 Hazardous decomposition products

Other decomposition products - no data available

## Section 11 - Toxicological Information

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Oral LD50

LD50 Oral - Rat - 774 mg/kg

##### Inhalation LC50

No data available

##### Dermal LD50

LD50 Dermal - Rabbit - 2,268 mg/kg

##### Other information on acute toxicity

No data available

#### Skin corrosion/irritation

no data available

#### Serious eye damage/eye irritation

no data available

#### Respiratory or skin sensitization

Guinea pig - May cause sensitisation by skin contact

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

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.

#### Reproductive toxicity

no data available

#### Specific target organ toxicity - single exposure

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no data available

**Specific target orgtoxicity - repeated exposure**

no data available

**Aspiration hazard**

no data available

**Additional Information**

RTECS: Not available

**Section 12 - Ecological Information****12.1 Toxicity**

Toxicity to fish	LC50 - Danio rerio (zebra fish) - 439 mg/l - 96.0 h
Toxicity to daphnia and other aquatic Invertebrates	EC50 - Daphnia magna (Water flea) - > 6.7 mg/l - 48 h
Toxicity to algae	EC50 - Desmodesmus subspicatus (green algae) - 267 mg/l - 72 h

**12.2 Persistence and degradability**

no data available

**12.3 Bioaccumulative potential**

no data available

**12.4 Mobility in soil**

no data available

**12.5 Results of PBT and vPvB assessment**

no data available

**12.6 Other adverse effects**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Toxic to aquatic life with long lasting effects.

**Section 13 - Disposal Considerations****13.1 Waste treatment methods****Product**

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

**Section 14 - Transport Information****14.1 UN number**

ADR/RID: 3334

IMDG: 3334

IATA: 3334

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**14.2 UN proper shipping name**

ADR/RID: AVIATION REGULATED LIQUID,N.O.S.(3-Mercaptopropyltrimethoxysilane)

IMDG: AVIATION REGULATED LIQUID,N.O.S. (3-Mercaptopropyltrimethoxysilane)

IATA: Aviation regulated liquid, n.o.s.(3-MERCAPTOPROPYLTRIMETHOXYSILANE)

**14.3 Transport hazard class(es)**

ADR/RID: 9

IMDG: 9

IATA: 9

**14.4 Packaging group**

ADR/RID: III

IMDG: III

IATA: III

**14.5 Environmental hazards**

ADR/RID: no

IMDG Marine pollutant: yes

IATA: no

**14.6 Special precautions for user**

no data available

**Section 15 - Regulatory Information****WHMIS Classification**

D2B

Toxic Material Causing Other Toxic Effects

Skin sensitiser

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations

**Section 16 - Other Information****Further information:**

The above information describes exclusively the safety requirements of the product(s) and is based on our present-day knowledge. It does not represent a guarantee for the properties of the product(s) described in terms of the legal warranty regulations. Properties of the product are to be found in the respective product leaflet.

- End of Safety Data Sheet