

# SAFETY DATA SHEET



Regulation (EC) No 1907/2006 (REACH) &  
COMMISSION REGULATION (EU) 2015/830

Version 2.02

Product name n-Hexadecyltrimethoxysilane

Revision date 01-June-2020

## Section 1 - Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Product name n-Hexadecyltrimethoxysilane  
Product Number SICOSIL® SICO-N1613  
CAS No. 16415-12-6

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

Recommended use: Industrial use.

Uses advised against: Not for food, drug, pesticide or biocidal product use

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

Manufacturer: Sico Performance Material (Shandong) Co., Ltd  
Address: Jining Chemical Industrial Park, Jinxiang, Shandong, China  
Telephone: +86 537 8017875  
Fax: +86 537 8017875  
E-Mail: info@silanechem.com

### 1.4 Emergency telephone number

Emergency response service: +86 537 4555878

## Section 2 - Hazards identification

### 2.1 Classification of the substance or mixture

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

Not classified.

### 2.2 Label elements

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

Pictogram None  
Signal word : No signal word

Hazard statement(s) - None

Precautionary statement(s) - None

### 2.3 Other hazards - none

## Section 3 - Composition/information on ingredients

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## 3.1 Substances

Synonyms: Trimethoxyhexadecylsilane

Formula  $C_{19}H_{42}O_3Si$

Molecular Weight 346.62 g/mol

Component	Concentration
Hexadecyltrimethoxysilane	
CAS-No. 16415-12-6	-
EC-No. 240-464-3	

## 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 mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

No hazard identified.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## Section 5 - Firefighting Measures

### 5.1 Extinguishing media

Suitable extinguishing media

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

## Unsuitable extinguishing media

None known.

## 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

DNEL/DMEL (workers) - no hazard identified

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**DNEL/DMEL (general population)** - no hazard identified

## **PNEC**

PNEC aqua (freshwater)	0.047 mg/L
PNEC aqua (marine water)	0.005 mg/L
PNEC sediment (freshwater)	1.976 mg/kg dw
PNEC sediment (marine water)	0.198 mg/kg dw
PNEC Soil	0.393 mg/kg dw
PNEC STP	100 mg/L

## **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**

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

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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	Odourless
Odour Threshold	no data available
pH	no data available
Melting point/freezing	1.4°C @ 1005 hPa
Initial boiling point and	350°C @ 1005 hPa
Flash point	175 °C @ 1013 hPa
Evaporation rate	no data available
Flammability (solid, gas)	Non flammable
Upper/lower flammability or explosive limits	no data available
Vapour pressure	Hexadecyl(trimethoxy)silane: 1E-04 Pa @ 20°C (measured) Hexadecylsilanetriol: 1.9E-08 Pa @ 25°C (QSAR) Methanol: 12790 Pa @ 20°C (measured)
Vapour density	no data available
Relative density	0.89 @ 20°C
Water solubility	Hexadecyl(trimethoxy)silane: 2.0E-03 mg/l @ 20°C (QSAR) Hydrolysis product (hexadecylsilanetriol): 4.7 mg/l @ 20°C (QSAR) Methanol: miscible @ 20°C (measured)
Partition coefficient: octanol/ water	Hexadecyl(trimethoxy)silane: 8.1 @ 20°C (QSAR) Hydrolysis product (hexadecylsilanetriol): Log Kow 5 @ 20°C (QSAR) Methanol: -0.82 to -0.64 (measured)
Autoignition temperature	235°C @ 1013 hPa
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	Not explosive
Oxidizing properties	Not oxidising

### 9.2 Other safety information

No data available

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## Section 10 - Stability and Reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under normal usage conditions

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Strong acids, Strong oxidizing agents

### 10.6 Hazardous decomposition products

Methanol in case of hydrolysis.

## Section 11 - Toxicological Information

### 11.1 Information on toxicological effects

#### Acute toxicity

Acute oral toxicity (OECD TG 423, GLP): LD50>2000 mg/kg bw

Acute inhalation toxicity: data waiver according to Column 2 of REACH Annex VIII

Acute dermal toxicity (OECD 402, RA from CAS 3069-42-9): LD50>2000 mg/kg bw

#### Skin corrosion/irritation

Skin irritation in rabbits (OECD TG 404, GLP): not irritating

#### Serious eye damage/eye irritation

Eye irritation in rabbits (OECD TG 405, GLP): not irritating

#### Respiratory or skin sensitization

Skin sensitization: not sensitising.

#### Germ cell mutagenicity

Not classified.

#### 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

Not classified.

#### Specific target organ toxicity - single exposure

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Not classified.

## Specific target orgtoxicity - repeated exposure

Not classified.

## Aspiration hazard

Not classified.

## Section 12 - Ecological Information

### 12.1 Toxicity

LL50 (96 h): > 1000 mg/l *Danio rerio*

EL50 (48 h): > 100 mg/l *Daphnia magna*

EL50 (96 h): > 30 mg/l *Desmodesmus subspicatus*

### 12.2 Persistence and degradability

Not readily biodegradable.

Degradation: 43%, based on BOD at 100 mg/l test concentration (OECD 301C, GLP), RL2

### 12.3 Bioaccumulative potential

The substance hydrolyses rapidly and thus has low potential for bioaccumulation. Therefore, the bioaccumulation in aquatic species study does not need to be conducted.

### 12.4 Mobility in soil

Hexadecyltrimethoxysilane hydrolyses in contact with water to the corresponding hexadecylsilanetriol, and thus have low potential for adsorption. Therefore, in accordance with Column 2 of REACH Annex VIII, the adsorption/desorption screening test does not need to be conducted, and also there is no need for further information on adsorption/desorption.

### 12.5 Results of PBT and vPvB assessment

The substance is not PBT / vPvB.

### 12.6 Other adverse effects

No data available

## 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

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Dispose of as unused product.

## Section 14 - Transport Information

### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

### 14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

### 14.6 Special precautions for user

No data available

## Section 15 - Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

No REACH Annex XVII restrictions

Not on the REACH Candidate List

Not on the REACH Annex XIV List

### 15.2 Chemical Safety Assessment

A chemical safety assessment has been carried out

## 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

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the legal warranty regulations. Properties of the product are to be found in the respective product leaflet.

- End of Safety Data Sheet

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