

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

Version 2.02

Product name iso-Butyltriethoxysilane

Revision date 01-June-2020

Section 1 - Identification of the material and supplier

1.1 Product identifier

Product name iso-Butyltriethoxysilane
Product Number SICOSIL® SICO-I423

CAS No. 17980-47-1

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 identifiheation

2.1 Classification of the substance or mixture

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

Skin Corrosion / Irritation(Category 2)

2.2 Label elements

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

Pictogram



Signal word: Warning

Hazard statement(s)

H315 Causes skin irritation.

Precautionary statement(s) none

2.3 Other hazards - none

Section 3 - Composition/information on ingredients

3.1 Substances

Synonyms: Triethoxy(isobutyl)silane
Isobutyltriethoxysilane

Formula $C_{10}H_{24}O_3Si$

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Molecular Weight 220.38 g/mol

Component	Concentration
iso-Butyltriethoxysilane	
CAS-No. 17980-47-1	_
EC-No. 402-810-3	_

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.

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.

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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

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

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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 no data available
Odour Threshold no data available
pH no data available

Melting point/freezing Melting point/range: -72 °C at 1.013 hPa - OECD Test

point Guideline 102

Initial boiling point and 165 °C at 533 hPa - lit. boiling rangeFlash point 190 - 191 °C - lit. Flash point 60.5 °C - closed cup rangeFlash point no data available

Flammability (solid, gas) no data available

Upper/lower flammability or explosive limits

Upper explosion limit: 8,47 %(V)

Lower explosion limit: 0,39 %(V)

Vapour pressure 0,33 hPa at 20 °C
Vapour density no data available
Relative density 0.88 g/cm3 at 25 °C

Water solubility 0,212 g/l at 20 °C - OECD Test Guideline 105 - slightly

Partition coefficient: noctanol/ no data available

water

Autoignition temperature 240 °C

Decomposition temperature no data available
Viscosity no data available
Explosive properties no data available
Oxidizing properties no data available

9.2 Other safety information

Surface tension 62.1mN/m at 20 °C

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

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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

LD50 Oral - rat - male and female - > 5.000 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - rat - male and female - 4 h - > 5,88 mg/l

(OECD Test Guideline 403)

LD50 Dermal - rat - male and female - > 2.000 mg/kg

(OECD Test Guideline 402)

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Eyes - rabbit

Result: No eye irritation

(OECD Test Guideline 405)

Respiratory or skin sensitization

Maximisation Test - guinea pig

Did not cause sensitisation on laboratory animals.

(OECD Test Guideline 406)

Germ cell mutagenicity

in vitro assay

ovary

Result: negative

mouse - male and female

Result: negative 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

no data available

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Specific target orgtoxicity - repeated exposure

no data available

Aspiration hazard

no data available

Signs and Symptoms of Exposure

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

Additional Information

Repeated dose toxicity - rat - male and female - Gavage - No observed adverse effect

level - >= 5.000 mg/kg RTECS: Not available

Section 12 - Ecological Information

12.1 Toxicity

Toxicity to fish semi-static test LC50 - Oncorhynchus mykiss (rainbow trout)

- 85 mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia and static test EC50 - Daphnia magna (Water flea) - > 49,1 mg/l -

other aquatic 48 h

Invertebrates (Directive 67/548/EEC, Annex V, C.2.)

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata

(Selenastrum capricornutum)

- > 100 mg/l - 96 h

(OECD Test Guideline 201)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 75 % - Readily biodegradable.

(OECD Test Guideline 301D)

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

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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

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 data available

15.2 Chemical Safety Assessment

no data available

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