

SAFETY DATA SHEET



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

Version 2.02

Product name Tetraethoxysilane Si-28

Revision date 01-June-2020

Section 1 - Identification of the material and supplier

1.1 Product identifier

Product name Tetraethoxysilane Si-28

Product Number SICOSIL® SICO-T28

CAS No. 78-10-4

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]

Flammable liquids (Category 3)

Acute toxicity, Inhalation (Category 4)

Eye irritation (Category 2)

Specific target organ toxicity - single exposure (Category 3)

2.2 Label elements

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

Pictogram



Signal word :

Warning

Hazard statement(s)

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

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H332 Harmful if inhaled.
H335 May cause respiratory irritation.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/.../equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray

P264 Wash ... thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

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

P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340+P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

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

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use ... for extinction.

P403+P233 Store in a well-ventilated place.Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container to...

2.3 Other hazards - none

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Section 3 - Composition/information on ingredients

3.1 Substances

Synonyms: Tetraethyl orthosilicate

Formula $C_8H_{20}O_4Si$

Molecular Weight 208.33 g/mol

Component	Concentration
Tetraethoxysilane	
CAS-No. 78-10-4	-
EC-No. 201-083-8	-

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.

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Section 6 - Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

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.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of Electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

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.

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

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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	no data available
Odour Threshold	no data available
pH	no data available
Melting point/freezing	no data available
Initial boiling point and	168 °C - lit.
Flash point	48 °C - closed cup
Evaporation rate	no data available
Flammability (solid, gas)	no data available
Upper/lower flammability or explosive limits	Upper explosion limit: 23 %(V) Lower explosion limit: 1,3 %(V)
Vapour pressure	10,0 hPa at 20 °C
Vapour density	7.19 - (Air = 1.0)
Relative density	0.933 g/cm ³ at 20 °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
Explosive properties	no data available
Oxidizing properties	no data available

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

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Exposure to moisture may affect product quality.

Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Strong acids, Strong oxidizing agents

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 - 6270 mg/kg

LD50 Dermal - rabbit - 5878 mg/kg

Skin corrosion/irritation

Skin - rabbit - Skin irritation - 24 h

Serious eye damage/eye irritation

Eyes - rabbit - Mild eye irritation - 24 h

Respiratory or skin sensitization

no data available

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

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

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no data available

Potential health effects

Inhalation	Harmful if inhaled. Causes respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes serious eye irritation.

Signs and Symptoms of Exposure

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

Additional Information

RTECS: VV9450000

Section 12 - Ecological Information

12.1 Toxicity

no data available

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

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: 1292

IMDG: 1292

IATA: 1292

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14.2 UN proper shipping name

ADR/RID: FLAMMABLE LIQUID, N.O.S. (Tetraethyl silicate)

IMDG: FLAMMABLE LIQUID, N.O.S. (Tetraethyl silicate)

IATA: Flammable liquid, n.o.s. (Tetraethyl silicate)

14.3 Transport hazard class(es)

ADR/RID: 3

IMDG: 3

IATA: 3

14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

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 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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