

## SAFETY DATA SHEET

Revision Date 01-Apr-2024

Revision Number 4

### 1. Identification

**Product Name** Silicon(IV) oxide, 30% in Ethylene glycol, colloidal dispersion

**Cat No. :** 43094

**Synonyms** No information available

**Recommended Use** Laboratory chemicals.

**Uses advised against** Food, drug, pesticide or biocidal product use.

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

##### Company

Thermo Fisher Scientific Chemicals, Inc.  
30 Bond Street  
Ward Hill, MA 01835-8099  
Tel: 800-343-0660  
Fax: 800-322-4757

##### **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity	Category 4
Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - Kidney.	

#### Label Elements

##### **Signal Word**

Warning

##### **Hazard Statements**

Harmful if swallowed  
May cause damage to organs through prolonged or repeated exposure



#### Precautionary Statements

##### Prevention

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Do not breathe dust/fume/gas/mist/vapors/spray

##### Response

Get medical attention/advice if you feel unwell

##### Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

##### Disposal

Dispose of contents/container to an approved waste disposal plant

##### Hazards not otherwise classified (HNOC)

None identified

WARNING. Cancer and Reproductive Harm - <https://www.p65warnings.ca.gov/>.

### 3. Composition/Information on Ingredients

Component	CAS No	Weight %
Ethylene glycol	107-21-1	70.00
Silica, amorphous	7631-86-9	30.00

### 4. First-aid measures

<b>General Advice</b>	If symptoms persist, call a physician.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
<b>Inhalation</b>	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water.
<b>Most important symptoms and effects</b>	None reasonably foreseeable.
<b>Notes to Physician</b>	Treat symptomatically

### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Carbon dioxide (CO <sub>2</sub> ). Powder. Water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
<b>Unsuitable Extinguishing Media</b>	No information available

**Flash Point** No information available  
**Method -** No information available

**Autoignition Temperature** No information available

**Explosion Limits**

**Upper** No data available

**Lower** No data available

**Sensitivity to Mechanical Impact** No information available

**Sensitivity to Static Discharge** No information available

**Specific Hazards Arising from the Chemical**

Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**

Silicon dioxide.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

**Health**  
2

**Flammability**  
0

**Instability**  
0

**Physical hazards**  
-

## 6. Accidental release measures

**Personal Precautions**

Ensure adequate ventilation. Use personal protective equipment as required.

**Environmental Precautions**

Should not be released into the environment. See Section 12 for additional Ecological Information.

**Methods for Containment and Clean Up**

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

## 7. Handling and storage

**Handling**

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

**Storage.**

Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Oxidizing agent.

## 8. Exposure controls / personal protection

**Exposure Guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH	Mexico OEL (TWA)
Ethylene glycol	TWA: 25 ppm STEL: 50 ppm STEL: 10 mg/m <sup>3</sup>	(Vacated) Ceiling: 50 ppm (Vacated) Ceiling: 125 mg/m <sup>3</sup>		Ceiling: 100 mg/m <sup>3</sup>
Silica, amorphous		(Vacated) TWA: 6 mg/m <sup>3</sup>	IDLH: 3000 mg/m <sup>3</sup> TWA: 6 mg/m <sup>3</sup>	

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

**Engineering Measures**

Ensure adequate ventilation, especially in confined areas.

### Personal Protective Equipment

<b>Eye/face Protection</b>	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
<b>Skin and body protection</b>	Wear appropriate protective gloves and clothing to prevent skin exposure.
<b>Respiratory Protection</b>	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
<b>Recommended Filter type:</b>	Organic gases and vapours filter. Particulates filter conforming to EN 143.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

<b>Physical State</b>	Liquid dispersion
<b>Appearance</b>	White
<b>Odor</b>	sweet
<b>Odor Threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/Range</b>	196 °C / 384.8 °F
<b>Flash Point</b>	No information available
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid,gas)</b>	Not applicable
<b>Flammability or explosive limits</b>	
Upper	No data available
Lower	No data available
<b>Vapor Pressure</b>	23 hPa @ 20 °C
<b>Vapor Density</b>	No information available
<b>Specific Gravity</b>	1.3 g/cm3
<b>Solubility</b>	No information available
<b>Partition coefficient; n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No information available
<b>Decomposition Temperature</b>	No information available
<b>Viscosity</b>	No information available
<b>Molecular Formula</b>	O2 Si
<b>Molecular Weight</b>	60.09

## 10. Stability and reactivity

<b>Reactive Hazard</b>	None known, based on information available
<b>Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Incompatible products.
<b>Incompatible Materials</b>	Oxidizing agent
<b>Hazardous Decomposition Products</b>	Silicon dioxide
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing.

## 11. Toxicological information

**Acute Toxicity****Product Information****Oral LD50**

Category 4. ATE = 300 - 2000 mg/kg.

**Dermal LD50**

Based on ATE data, the classification criteria are not met. ATE &gt; 2000 mg/kg.

**Vapor LC50**

Based on ATE data, the classification criteria are not met. ATE &gt; 20 mg/l.

**Component Information**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethylene glycol	7712 mg/kg ( Rat )	LD50 = 9530 µL/kg ( Rabbit ) LD50 = 10600 mg/kg ( Rat ) LD50 > 3500 mg/kg (mice)	LC50 > 2.5 mg/L ( Rat ) 6 h
Silica, amorphous	>5000 mg/kg ( Rat )	>2000 mg/kg ( Rabbit )	-

**Toxicologically Synergistic**

No information available

**Products****Delayed and immediate effects as well as chronic effects from short and long-term exposure****Irritation**

No information available

**Sensitization**

No information available

**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Ethylene glycol	107-21-1	Not listed	Not listed	Not listed	Not listed	Not listed
Silica, amorphous	7631-86-9	Not listed	Known	Not listed	Not listed	Not listed

NTP: (National Toxicity Program)

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

**Mutagenic Effects**

No information available

**Reproductive Effects**

No information available.

**Developmental Effects**

No information available.

**Teratogenicity**

No information available.

**STOT - single exposure**

None known

**STOT - repeated exposure**

Kidney

**Aspiration hazard**

No information available

**Symptoms / effects, both acute and delayed**

No information available

**Endocrine Disruptor Information**

No information available

**Other Adverse Effects**

The toxicological properties have not been fully investigated.

**12. Ecological information****Ecotoxicity**

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Ethylene glycol	EC50: 6500 - 13000 mg/L, 96h (Pseudokirchneriella subcapitata)	LC50: = 41000 mg/L, 96h (Oncorhynchus mykiss) LC50: = 27540 mg/L, 96h static (Lepomis macrochirus) LC50: 14 - 18 mL/L, 96h static (Oncorhynchus mykiss)	Not listed	EC50: = 46300 mg/L, 48h (Daphnia magna)

		LC50: = 40761 mg/L, 96h static (Oncorhynchus mykiss) LC50: 40000 - 60000 mg/L, 96h static (Pimephales promelas) LC50: = 16000 mg/L, 96h static (Poecilia reticulata)		
Silica, amorphous	EC50: 440 mg/L/72h	LC50: 5000 mg/L/96 h	Not listed	EC50: 7600 mg/L/48h

**Persistence and Degradability** Immiscible with water May persist based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Is not likely mobile in the environment due its low water solubility.

Component	log Pow
Ethylene glycol	-1.36

### 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### 14. Transport information

<b>DOT</b>	Not regulated
<b>TDG</b>	Not regulated
<b>IATA</b>	Not regulated
<b>IMDG/IMO</b>	Not regulated

### 15. Regulatory information

#### United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Ethylene glycol	107-21-1	X	ACTIVE	-
Silica, amorphous	7631-86-9	X	ACTIVE	-

#### Legend:

**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)**

Not applicable

**TSCA 12(b)** - Notices of Export

Not applicable

#### International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Ethylene glycol	107-21-1	X	-	203-473-3	X	X	X	X	X	KE-13169
Silica, amorphous	7631-86-9	X	-	231-545-4	X	X	X	X	X	KE-31032

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	CAS No	Weight %	SARA 313 - Threshold Values %	SARA 313 - Reporting thresholds
Ethylene glycol	107-21-1	70.00	1.0 %	-

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)** Not applicable

**Clean Air Act**

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Ethylene glycol	X		-

**OSHA - Occupational Safety and Health Administration** Not applicable

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Silica, amorphous	50 µg/m <sup>3</sup> TWA 25 µg/m <sup>3</sup> Action Level	-

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

Component	Hazardous Substances RQs	CERCLA Extremely Hazardous Substances RQs	SARA Reportable Quantity (RQ)
Ethylene glycol	5000 lb	-	5000 lb 2270 kg

**California Proposition 65** This product contains the following Proposition 65 chemicals.

Component	CAS No	California Prop. 65	Prop 65 NSRL	Category
Ethylene glycol	107-21-1	Developmental	-	Developmental
Silica, amorphous	7631-86-9	Carcinogen	-	Carcinogen

**U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Ethylene glycol	X	X	X	X	-
Silica, amorphous	X	-	X	-	-

**U.S. Department of Transportation**

Reportable Quantity (RQ): Y  
DOT Marine Pollutant N  
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

**Other International Regulations**

Mexico - Grade

No information available

Authorisation/Restrictions according to EU REACH

Not applicable

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Ethylene glycol	107-21-1	-	-	-
Silica, amorphous	7631-86-9	-	-	-

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

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Ethylene glycol	107-21-1	Listed	Not applicable	Not applicable	Not applicable
Silica, amorphous	7631-86-9	Listed	Not applicable	Not applicable	Not applicable

Contains component(s) that meet a 'definition' of per &amp; poly fluoroalkyl substance (PFAS)?

Not applicable

Other International Regulations

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Ethylene glycol	107-21-1	Not applicable	Not applicable	Not applicable	Not applicable
Silica, amorphous	7631-86-9	Not applicable	Not applicable	Not applicable	Not applicable

## 16. Other information

Prepared By

Health, Safety and Environmental Department  
Email: chem.techinfo@thermofisher.com  
www.thermofisher.com

Revision Date

01-Apr-2024

Print Date

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Revision Summary

New emergency telephone response service provider.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**