



Health	1
Fire	0
Reactivity	0
Personal Protection	E

## Material Safety Data Sheet

### Silicon Dioxide, Amorphous MSDS

#### Section 1: Chemical Product and Company Identification

**Product Name:** Silicon Dioxide, Amorphous

**Catalog Codes:** SLS3940

**CAS#:** 7631-86-9 or 112926-00-8

**RTECS:** VV7310000 or VV7315000

**TSCA:** TSCA 8(b) inventory: Silicon Dioxide, Amorphous

**CI#:** Not available.

**Synonym:** Synthetic Amorphous Silica; Synthetic amorphous precipitated silicon dioxide; silica - amorphous, precipitated silica

**Chemical Name:** Silicon Dioxide

**Chemical Formula:** Si-O<sub>2</sub>

**Contact Information:**

**Sciencelab.com, Inc.**

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: [ScienceLab.com](http://ScienceLab.com)

**CHEMTREC (24HR Emergency Telephone), call:**  
1-800-424-9300

**International CHEMTREC, call:** 1-703-527-3887

**For non-emergency assistance, call:** 1-281-441-4400

#### Section 2: Composition and Information on Ingredients

**Composition:**

Name	CAS #	% by Weight
Silicon Dioxide, Amorphous	7631-86-9 or 112926-00-8	100

**Toxicological Data on Ingredients:** Silicon Dioxide, Amorphous: ORAL (LD50): Acute: >10000 mg/kg [Rat]. DERMAL (LD50): Acute: >5000 mg/kg [Rabbit].

#### Section 3: Hazards Identification

**Potential Acute Health Effects:** Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to lungs, upper respiratory tract. Repeated or prolonged exposure to the substance can produce target organs damage.

#### Section 4: First Aid Measures

**Eye Contact:**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

**Skin Contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

**Serious Skin Contact:** Not available.

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation:** Not available.

**Ingestion:**

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Serious Ingestion:** Not available.

### Section 5: Fire and Explosion Data

**Flammability of the Product:** Non-flammable.

**Auto-Ignition Temperature:** Not applicable.

**Flash Points:** Not applicable.

**Flammable Limits:** Not applicable.

**Products of Combustion:** Not available.

**Fire Hazards in Presence of Various Substances:** Not applicable.

**Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

**Fire Fighting Media and Instructions:** Not applicable.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

### Section 6: Accidental Release Measures

**Small Spill:**

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:**

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

### Section 7: Handling and Storage

**Precautions:**

Do not ingest. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic

## Section 8: Exposure Controls/Personal Protection

### Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:** Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

### Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### Exposure Limits:

TWA: 10 (mg/m<sup>3</sup>) from ACGIH (TLV) [United States] Inhalation Total. TWA: 6 (mg/m<sup>3</sup>) from OSHA (PEL) [United States] Inhalation Total. Consult local authorities for acceptable exposure limits.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Solid. (Amorphous solid powder.)

**Odor:** Odorless.

**Taste:** Tasteless.

**Molecular Weight:** 60.09 g/mole

**Color:** White.

**pH (1% soln/water):** Not applicable.

**Boiling Point:** Not available.

**Melting Point:** 1610°C (2930°F)

**Critical Temperature:** Not available.

**Specific Gravity:** 2 (Water = 1)

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** Is not dispersed in cold water, hot water.

### Solubility:

Insoluble in cold water, hot water. Very slightly soluble in alkali. Soluble in hot KOH and NaOH solutions. Insoluble in ethanol. Insoluble in acids except Hydrofluoric acid.

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Incompatible materials, moisture, excess dust generation.

**Incompatibility with various substances:** Not available.

**Corrosivity:** Not available.

**Special Remarks on Reactivity:**

Hygroscopic. Incompatible with (hydrogen) fluoride, oxygen difluoride, chlorine trifluoride. May react vigorously with vinyl acetate vapor.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

### Section 11: Toxicological Information

**Routes of Entry:** Inhalation. Ingestion.

**Toxicity to Animals:**

Acute oral toxicity (LD50): >10000 mg/kg [Rat]. Acute dermal toxicity (LD50): >5000 mg/kg [Rabbit].

**Chronic Effects on Humans:**

CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. May cause damage to the following organs: lungs, upper respiratory tract.

**Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Not available.

**Special Remarks on other Toxic Effects on Humans:**

Acute Potential Health Effects: Skin: May cause drying of the skin. Eyes: Dust may cause irritation. Inhalation: May cause respiratory tract irritation and drying of the mucous membranes. May affect lungs and respiration. Ingestion: Low hazard expected for normal industrial handling and use.

### Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic.

**Special Remarks on the Products of Biodegradation:** Not available.

### Section 13: Disposal Considerations

**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

### Section 14: Transport Information

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.

## Section 15: Other Regulatory Information

### Federal and State Regulations:

Pennsylvania RTK: Silicon Dioxide, Amorphous Minnesota: Silicon Dioxide, Amorphous Massachusetts RTK: Silicon Dioxide, Amorphous New Jersey: Silicon Dioxide, Amorphous California Director's List of Hazardous Substances: Silicon Dioxide, Amorphous TSCA 8(b) inventory: Silicon Dioxide, Amorphous (Silica)

### Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

### Other Classifications:

**WHMIS (Canada):** Not controlled under WHMIS (Canada).

### DSCL (EEC):

This product is not classified according to the EU regulations. Not applicable.

### HMIS (U.S.A.):

**Health Hazard:** 1

**Fire Hazard:** 0

**Reactivity:** 0

**Personal Protection:** E

### National Fire Protection Association (U.S.A.):

**Health:** 1

**Flammability:** 0

**Reactivity:** 0

**Specific hazard:**

### Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

## Section 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/09/2005 06:26 PM

**Last Updated:** 05/21/2013 12:00 PM

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