



## SILICON DIOXIDE, amorphous

Safety Data Sheet SIS6960.0

Date of issue: 09/14/2015 Version: 1.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance  
 Physical state : Solid  
 Substance name : SILICON DIOXIDE, amorphous  
 Product code : SIS6960.0  
 Formula : SiO<sub>2</sub>  
 Synonyms : FUMED SILICA; PYROGENIC SILICA  
 Chemical family : INORGANIC SILICATE

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

Use of the substance/mixture : Chemical intermediate  
 For research and industrial use only

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

##### GELEST, INC.

11 East Steel Road  
 Morrisville, PA 19067

##### USA

T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST

[info@gelest.com](mailto:info@gelest.com) - [www.gelest.com](http://www.gelest.com)

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS-US)

Not classified

#### 2.2. Label elements

##### GHS-US labeling

No labeling applicable

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

No data available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Substance type : Mono-constituent  
 Name : SILICON DIOXIDE, amorphous  
 CAS No : 112945-52-5

| Name               | Product identifier   | %        | Classification (GHS-US) |
|--------------------|----------------------|----------|-------------------------|
| Silicon, amorphous | (CAS No) 112945-52-5 | 97 - 100 | Not classified          |

#### 3.2. Mixture

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label. IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Wash with plenty of soap and water. Get medical advice/attention.

# SILICON DIOXIDE, amorphous

## Safety Data Sheet

|                                      |   |
|--------------------------------------|---|
| First-aid measures after eye contact | : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. |
| First-aid measures after ingestion   | : Never give anything by mouth to an unconscious person. Get medical advice/attention.  |

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

|                                      |  |
|--------------------------------------|--|
| Symptoms/injuries after inhalation   | : May cause irritation to the respiratory tract. |
| Symptoms/injuries after skin contact | : May cause skin irritation.                     |
| Symptoms/injuries after eye contact  | : May cause eye irritation.                      |
| Symptoms/injuries after ingestion    | : May be harmful if swallowed.                   |

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                                |                    |
|--------------------------------|--------------------|
| Suitable extinguishing media   | : Not combustible. |
| Unsuitable extinguishing media | : None known.      |

### 5.2. Special hazards arising from the substance or mixture

|                  |               |
|------------------|---------------|
| Fire hazard      | : None known. |
| Explosion hazard | : None known. |

### 5.3. Advice for firefighters

|                                |   |
|--------------------------------|---|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Avoid contact with skin and eyes. Do not breathe dust. |
|--------------------------------|---|

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

|                      |  |
|----------------------|--|
| Protective equipment | : Wear protective equipment as described in Section 8. |
| Emergency procedures | : Evacuate unnecessary personnel.                      |

#### 6.1.2. For emergency responders

|                      |  |
|----------------------|--|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|--|

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

|                         |  |
|-------------------------|--|
| For containment         | : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. |
| Methods for cleaning up | : Sweep or shovel spills into appropriate container for disposal.                                    |

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

|                                   |   |
|-----------------------------------|---|
| Additional hazards when processed | : While not flammable, the ability of fumed silica to generate static charge may present a hazard when used in combination with flammable liquids.  |
| Precautions for safe handling     | : Avoid contact with skin and eyes. Use only in well ventilated areas. Avoid dust formation. Do not breathe dust. Provide local exhaust or general room ventilation to minimize exposure to dust. |
| Hygiene measures                  | : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.                                  |

### 7.2. Conditions for safe storage, including any incompatibilities

|                        |                                  |
|------------------------|----------------------------------|
| Storage conditions     | : Keep container tightly closed. |
| Incompatible materials | : None known.                    |

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

# SILICON DIOXIDE, amorphous

## Safety Data Sheet

### Silicon, amorphous (112945-52-5)

|          |                                     |                                    |
|----------|-------------------------------------|------------------------------------|
| USA OSHA | OSHA PEL (TWA) (mg/m <sup>3</sup> ) | 15 mg/m <sup>3</sup> nuisance dust |
|----------|-------------------------------------|------------------------------------|

#### 8.2. Exposure controls

|                                  |   |
|----------------------------------|---|
| Appropriate engineering controls | : Provide local exhaust or general room ventilation.  |
| Personal protective equipment    | : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.  |
| Hand protection                  | : Neoprene or nitrile rubber gloves.  |
| Eye protection                   | : Chemical goggles. Contact lenses should not be worn.  |
| Skin and body protection         | : Wear suitable protective clothing.  |
| Respiratory protection           | : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (orange cartridge) respirator. |

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|   |                       |
|---|-----------------------|
| Physical state                              | : Solid               |
| Appearance                                  | : Powder.             |
| Molecular mass                              | : 60.09 g/mol         |
| Color                                       | : White.              |
| Odor  | : No data available   |
| Odor threshold                              | : No data available   |
| Refractive index                            | : 1.46                |
| pH  | : No data available   |
| Relative evaporation rate (butyl acetate=1) | : No data available   |
| Melting point                               | : > 1600 °C           |
| Freezing point                              | : No data available   |
| Boiling point                               | : No data available   |
| Flash point                                 | : No data available   |
| Auto-ignition temperature                   | : No data available   |
| Decomposition temperature                   | : No data available   |
| Flammability (solid, gas)                   | : No data available   |
| Vapor pressure                              | : < 0.01 mm Hg @ 20°C |
| Relative vapor density at 20 °C             | : No data available   |
| Relative density                            | : 2.2                 |
| VOC content                                 | : 100 %               |
| Solubility                                  | : Insoluble in water. |
| Log Pow                                     | : No data available   |
| Log Kow                                     | : No data available   |
| Viscosity, kinematic                        | : No data available   |
| Viscosity, dynamic                          | : No data available   |
| Explosive properties                        | : No data available   |
| Oxidizing properties                        | : No data available   |
| Explosion limits                            | : No data available   |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

None known.

# SILICON DIOXIDE, amorphous

## Safety Data Sheet

### 10.6. Hazardous decomposition products

None known.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| Silicon, amorphous (112945-52-5) |                                      |
|----------------------------------|--------------------------------------|
| LD50 oral rat                    | 3160 mg/kg ; 8160 mg/kg; >5000 mg/kg |
| ATE US (oral)                    | 3160.000 mg/kg body weight           |

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

| Silicon, amorphous (112945-52-5) |                      |
|----------------------------------|----------------------|
| IARC group                       | 3 - Not classifiable |

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : May cause irritation to the respiratory tract.

Symptoms/injuries after skin contact : May cause skin irritation.

Symptoms/injuries after eye contact : May cause eye irritation.

Symptoms/injuries after ingestion : May be harmful if swallowed.

## SECTION 12: Ecological information

### 12.1. Toxicity

No additional information available

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Other adverse effects : This substance may be hazardous to the environment.

Effect on ozone layer : No additional information available

Effect on the global warming : No known ecological damage caused by this product.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Waste disposal recommendations : Landfill. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

### 14.1. UN number

Not regulated for transport.

### 14.2. UN proper shipping name

Not applicable

### 14.3. Additional information

Other information : No supplementary information available.

# SILICON DIOXIDE, amorphous

## Safety Data Sheet

### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Silicon, amorphous (112945-52-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. International regulations

#### Silicon, amorphous (112945-52-5)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on the Canadian DSL (Domestic Substances List)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on INSQ (Mexican national Inventory of Chemical Substances)

### 15.3. US State regulations

#### SILICON DIOXIDE, amorphous(112945-52-5)

|   |    |
|---|----|
| U.S. - California - Proposition 65 - Carcinogens List               | No |
| U.S. - California - Proposition 65 - Developmental Toxicity         | No |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Female | No |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Male   | No |

#### Silicon, amorphous (112945-52-5)

| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significance risk level (NSRL) |
|---|---|---|---|-----------------------------------|
| No  | No  | No  | No  |                                   |

## SECTION 16: Other information

### Abbreviations and acronyms

: Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development.

### HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur  
Flammability : 0 Minimal Hazard  
Physical : 0 Minimal Hazard

Prepared by safety and environmental affairs.

Date of issue: 09/14/2015 Version: 1.0

SDS US (GHS HazCom 2012) - Custom

# SILICON DIOXIDE, amorphous

## Safety Data Sheet

---

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

*The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.*

© 2015 Gelest Inc. Morrisville, PA 19067

