


Plasmaterials, Inc.
 2268 Research Drive
 Livermore, CA 94550
 Ph: (925) 447-4030 Fx: (925) 447-4031
<http://plasmaterials.com>

SAFETY DATA SHEET

Section 1- IDENTIFICATION		
COMPOSITION SiO2		PRODUCT NAME Silicon Dioxide
SUPPLIER: Plasmaterials, Inc. 2268 Research Drive Livermore, CA 94550 Ph: 925-447-4030	RECOMMENDED USE: Laboratory Chemicals Scientific Research	EMERGENCY TELEPHONE NUMBERS US: 800-424-9300 International: 001-703-527-3887

Section 2- HAZARD(S) IDENTIFICATION	
HEALTH HAZARDS: Physical Hazards: 1 Health Hazard: 2	ENVIRONMENTAL HAZARDS: Not Classified OSHA Defined Hazards: Not Classified
LABEL ELEMENTS: Signal Word: Danger	
Hazard Statements: Causes damage to organs through prolonged or repeated exposure	
	
PRECAUTIONARY STATEMENTS	
Prevention:	
<ul style="list-style-type: none"> -Observe good industrial hygiene practices -Do not handle until all safety precautions have been read and understood -Do not breathing dust/fume/gas/mist/vapors/spray -Wash thoroughly after handling. Do not eat, drink or smoke when using this product. -Get medical advice/attention if you feel unwell. - Dispose of contents/container in accordance with local/regional/national/international regulations 	
Response:	
-If exposed or concerned: Get medical advice/attention	
Storage:	
-Store locked up.	
Disposal:	
-Dispose of contents/container in accordance with local, regional, national, and international regulations.	
Hazards not otherwise classified (HNOC):	
-None identified.	

Section 3- COMPOSITION/INFORMATION ON INGREDIENTS		
COMPONENT	CAS-No	Weight%
Silicon Dioxide	7631-86-9	90-100

Section 4- FIRST AID MEASURES

GENERAL ADVICE: If exposed or concerned: get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

INHALATION: Remove victim from exposure to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a doctor/physician if symptoms develop or persist or are experiencing respiratory difficulties.

SKIN CONTACT: Remove contaminated clothing. Wash skin off with soap and plenty of water. Seek medical attention if irritation develops or persists.

EYE CONTACT: Do not rub eyes. Immediately flush eyes with plenty of water, lifting upper and lower lids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.

INGESTION: Rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a physician.

MOST IMPORTANT SYMPTOMS/EFFECTS: Dust may irritate the respiratory tract, skin and eyes.

NOTES TO PHYSICIAN: Provide general supportive measures and treat symptomatically.

Section 5- FIREFIGHTING MEASURES

Suitable Extinguishing Media:

Water spray, "Alcohol" Foam, Dry chemical powder, Carbon Dioxide (CO₂)

Unsuitable Extinguishing Media:

Not available

Specific Hazards Arising from the Chemical:

Silicon Dioxide.

Protective Equipment & Precautions for Firefighters:

As in any fire, Firefighters must wear full face, self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective clothing to prevent contact with skin and eyes.

Specific Methods:

Use standard firefighting procedures and consider the hazards of other involved materials. Water mist may be used to cool closed containers.

General Fire Hazards:

No unusual fire or explosion hazards noted.

Section 6- ACCIDENTAL RELEASE MEASURES

Personal Precautions: Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. For personal protection, see Section 8.

Environmental Precautions: Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

Methods for Containment & Clean Up:

-The product is immiscible with water and will spread on the water surface. Stop the flow of the material if this is without risk. Collect dust using a vacuum cleaner equipped with a HEPA filter.

-Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Avoid the generation of dusts during clean up. Following product recovery, flush area with water.

-Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean surface thoroughly to remove residual contamination.

-Never return spills to original containers for re-use. For waste disposal, see Section 13.

Section 7- HANDLING AND STORAGE

Handling: Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Avoid prolonged exposure. Wear appropriate personal protection equipment. Avoid release to the environment. Observe good industrial hygiene practices. Wash hands thoroughly after handling.

Storage: Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10)

Section 8- EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Component	CAS-No	US OSHA Table Z-3 (29 CFR 1910.1000) Material	US NIOSH Pocket Guide to Chemical Hazards
Silicon Dioxide	7631-86-9	TWA: 0.8 mg/m ³ 20mppcf	TWA: 6 mg/m ³

Biological Limit Values: No biological exposure limits noted for the ingredient(s)

Control Parameters: Follow standard monitoring procedures.

Personal Protective Equipment:

Eye/Face Protection: Wear appropriate protective eyeglasses or chemical safety goggles with side shields.

Skin and Body Protection: Wear appropriate chemical resistant gloves to prevent skin exposure. Suitable gloves can be recommended by the glove supplier. Wear suitable protective clothing.

Respiratory Protection: In case of insufficient ventilation or dust/aerosol is formed, wear suitable respiratory equipment.

Thermal Hazards: Not available.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice. Keep away from food and drink. Wash thoroughly after handling and before eating, drinking and/or smoking.

Section 9- PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Physical State: Solid

Form: Solid

Odor: Not Applicable

Odor Threshold: No information available

pH: No information available

Melting Point/Range: >2912°F (>1600 °C)

Initial Boiling Point/Range: 4046 °F (2230 °C)

Flash Point: No information available

Evaporation Rate: No information available

Flammability (solid,gas): No information available

Flammability Limits:

Upper: No data available

Lower: No data available

Explosive Limits:

Upper: No data available

Lower: No data available

Vapor Pressure: No information available

Vapor Density: No information available

Relative Density: 2.600 g/cm³

Solubility (Water): insoluble

Partition coefficient; n-octanol/water: No information available

Auto Ignition Temperature: No information available

Decomposition Temperature: No information available

Viscosity: No information available

Density: No information available

Explosive Properties: No information available
Oxidizing Properties: No information available
Molecular Formula: SiO₂
Molecular Weight: 60.09 g/mol

Section 10- STABILITY AND REACTIVITY

Reactive Hazard: No information available.

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: No information available.

Conditions to Avoid: Contact with incompatible products.

Incompatible Materials: Strong oxidizing agents, fluorine, chlorine

Hazardous Decomposition Products: No information available

Section 11- TOXICOLOGICAL INFORMATION

Information on likely Routes of Exposure:

Inhalation: Dust may irritate respiratory system.

Skin Contact: Dust or powder may irritate skin

Eye Contact: Dust may cause eye irritation

Ingestion: No data available

Symptoms Related to the Physical, Chemical & Toxicological Characteristics: Dust may irritate the respiratory system, skin and eyes.

Information on Toxicological Effects:

Acute Toxicity (Oral – LD50):

Component	CAS-No	Species	Test Results
Silicon Dioxide	7631-86-9	Mouse	>15000 mg/kg
Silicon Dioxide	7631-86-9	Rat	>22500 mg/kg
Estimates for product may be based on additional component data not shown			

Skin Corrosion/Irritation: No data available

Serious Eye Damage/Eye Irritation: No data available

Respiratory Sensitization: No data available

Skin Sensitization: No data available

Carcinogenicity:

Component	CAS-No	IARC	NTP	ACGIH	OSHA
Silicon Dioxide	7631-86-9	Group 3: Not classifiable as to its carcinogenicity to humans	Not Listed	Not Listed	Not Listed

Mutagenic Effects: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic

Reproductive Effects: No data available

STOT – single exposure: No data available

STOT – repeated exposure: No data available

Aspiration Hazard: No data available

Chronic Effects: Prolonged inhalation may be harmful.

Section 12- ECOLOGICAL INFORMATION

Ecotoxicity: No data available

Aquatic toxicity: No data available

Persistence and Degradability: No data available

Bioaccumulation/Accumulation: No data available

Mobility in soil: No data available

Other Adverse Effects: No data available

Section 13- DISPOSAL CONSIDERATIONS

Waste Disposal Instructions: Dispose of contents/containers in accordance with local, regional, national and international hazardous waste regulations.

Local Disposal Regulations: Dispose in accordance with all applicable regulations

Waste from Residues/Unused Products: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (See Disposal Instructions)

Contaminated Packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14- TRANSPORT INFORMATION

DOT: Not regulated as dangerous goods

IATA: Not regulated as dangerous goods

IMDG: Not regulated as dangerous goods

Section 15- REGULATORY INFORMATION

US Federal Regulations:

TSCA Section 12(b): Not regulated

U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not Listed

SARA 302 Extremely Hazardous Substance: Not Listed

SARA 313 (TRI reporting): Not regulated

SARA 311/312 Hazardous Chemical: Yes

SARA Hazard Categories:

Immediate Hazard: No

Delayed Hazard: No

Fire Hazard: No

Pressure Hazard: No

Reactive Hazard: No

Safe Drinking Water Act (SWDA): Not regulated

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated

CERCLA Hazardous Substance List (40 CFR 302.4): Not Listed

US California Proposition 65 (CA Safe Drinking Water & Toxic Enforcement Act of 1986): This product is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US California Controlled Substances. CA Dept of Justice (California Health & Safety Code Section 11100): Not Listed

US Massachusetts RTK – Substance List: Silicon Dioxide (CAS 7631-86-9)

US New Jersey Worker & Community Right-to-Know Act: Not regulated

US New Jersey RTK-Substances: Listed substance, Silicon Dioxide (CAS 7631-86-9)

US Pennsylvania RTK – Hazardous Substances: Silicon Dioxide (CAS 7631-86-9)

US Pennsylvania Worker & Community Right-to-Know Law: Silicon Dioxide (CAS 7631-86-9)

US Rhode Island RTK: Not regulated

Section 16- OTHER INFORMATION

The above information is accurate to the best of our knowledge. However, since data, safety standards and government regulations are subject to change, the conditions of handling and use, or misuse are beyond our control, Plasmaterials, Inc. makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Users should satisfy themselves that they have all current data relevant to their particular use.

The information in this SDS was obtained from sources, which we believe are reliable. However, the information is provided without any representation or warranty, expressed or implied, regarding the accuracy or correctness.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

REVISION: 06-29-15