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SAFETY DATA SHEET

Section 1- IDENTIFICATION

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

Section 2- HAZARD(S) IDENTIFICATION

Physical Hazards: Not Classified	Health Hazards: Not Classified
Environmental Hazards: Not Classified	OSHA Defined Hazards: Combustible Dust
LABEL ELEMENTS:	
Hazard Symbol: None	Signal Word: None
<p style="text-align: center;">HAZARD STATEMENTS</p> <p>-May form combustible dust concentrations in air</p> <p style="text-align: center;">PRECAUTIONARY STATEMENTS</p> <p>-P260: Do not breath dust/fume/gas/mist/vapors/spray -P264: Wash face, hands, and any exposed skin thoroughly after handling -P270: Do not eat, drink, or smoke when using this product -P420: Store away from incompatible materials -P501: Dispose of contents/container to an approved waste disposal plant</p> <p style="text-align: center;">HAZARDS NOT OTHERWISE CLASSIFIED (HNOC):</p> <p>-None identified.</p>	

Section 3- COMPOSITION/INFORMATION ON INGREDIANTS

COMPONENT	CAS-No	Molecular Weight
Silicon	7440-21-3	28.09 g/mol

Section 4- FIRST AID MEASURES

<p>GENERAL ADVICE: Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.</p> <p>Inhalation: Remove victim from exposure to fresh air. Give oxygen if breathing is difficult. If not breathing, give artificial respiration. Consult a physician if symptoms develop or persist.</p> <p>Skin Contact: Wash off with soap and water. Consult a physician if irritation develops and/or persists.</p> <p>Eye Contact: 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 and/or persists.</p> <p>Ingestion: Rinse mouth with water. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell. Get medical attention if symptoms occur.</p> <p>Most Important Symptoms/Effects: Direct contact with eyes may cause temporary irritation.</p> <p>Indication of any Immediate Medical Attention and Special Treatment Needed: Provide general supportive measures and treat symptomatically</p>
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Section 5- FIREFIGHTING MEASURES

Suitable Extinguishing Media: Carbon Dioxide (CO ₂); Dry Chemical Powder, Dry Sand, Alcohol-Resistant Foam	Unsuitable Extinguishing Media: Do not use water jet as an extinguisher as this will spread the fire
Specific Hazards Arising from the Chemical: No data available	
General Fire Hazards: Dusts may form an explosive mixture with air	
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. In case of fire and/or explosion do not breath fumes.	

Section 6- ACCIDENTAL RELEASE MEASURES

Personal Precautions: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Avoid dust formation. Avoid breathing dust, vapors, mist, or gas. Local authorities should be advised if significant spillages cannot be contained.
Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains, water courses, or onto the ground.
Methods for Containment & Clean Up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Never return spills to original containers for reuse. Clean surface thoroughly to remove residual contamination.

Section 7- HANDLING AND STORAGE

Handling: Avoid contact with eyes. Avoid formation of dust and aerosols. Avoid prolonged exposure. Provide appropriate exhaust ventilation at places where dust is formed. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.
Storage: Store in a cool, well-ventilated, dry place. Keep container tightly closed.

Section 8- EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Components with Workplace Control Parameters:

Component	CAS-No.	Value	Control Parameters	Basis
Silicon	7440-21-3	TWA	15 mg/m ³	USA. Occupational Exposure Limits (OSHA)–Table Z-1 Limits for Air Contaminants
		TWA	5 mg/m ³	USA. Occupational Exposure Limits (OSHA)–Table Z-1 Limits for Air Contaminants
		TWA	5 mg/m ³	USA.NIOSH Recommended Exposure Limits
		Remarks	Does not occur free in nature but is found in silicon dioxide (silica) and in various silicates.	
		TWA	10 mg/m ³	USA.NIOSH Recommended Exposure Limits
		Remarks	Does not occur free in nature but is found in silicon dioxide (silica) and in various silicates.	
		PEL	10 mg/m ³	California Permissible Exposure Limits for Chemical Contaminants (Title 8, Article 107)
		PEL	5 mg/m ³	California Permissible Exposure Limits for Chemical Contaminants (Title 8, Article 107)

Biological Limit Values: No biological exposure limits noted for this substance
Engineering Measures: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Appropriate Engineering Controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.
Personal Protective Equipment: Eye/Face Protection: Safety glasses with side shields conforming to EN 166. Use equipment for eye protection tested and approved under appropriate standards such as NIOSH (US) or EN 166 (EU). Skin and Body Protection: Handle with appropriate chemical resistant 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. Wear suitable protective clothing. The type of protective clothing equipment must be selected according to the concentration and amount of the dangerous substance and to the specific workplace. Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. Where protection from nuisance levels of dusts is desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9- PHYSICAL AND CHEMICAL PROPERTIES

<p>Physical State: Solid Appearance: Not available Odor: Not available Odor Threshold: Not available pH: Not available Melting Point/Range: 1,410°C (2,570°F) Boiling Point/Range: 2,355°C (4,271°F) Flash Point: No data available Evaporation Rate: No data available Flammability (solid, gas): No data available Flammability or Exposure Limits: Upper: No data available Lower: No data available Vapor Pressure: No data available Vapor Density: No data available Relative Density: 2.33 g/cm³ at 25°C (77°F) Solubility: No data available Partition coefficient; n-octanol/water: No data available Auto Ignition Temperature: No data available Decomposition Temperature: No data available Viscosity: No data available Explosive Properties: No data available Oxidizing Properties: No data available</p>

Section 10- STABILITY AND REACTIVITY

Reactive Hazard: Stable and non-reactive under normal conditions of use, storage, and transport
Stability: Stable under normal conditions.
Conditions to Avoid: Contact with incompatible materials
Incompatible Materials: strong oxidizing agents, chlorine, fluorine
Hazardous Decomposition Products: Hazardous decomposition products formed under fire conditions – Silicon Oxides

Other decomposition products-No information available

Hazardous Reactions: No information available

Section 11- TOXICOLOGICAL INFORMATION

Information on likely Routes of Exposure:

Inhalation: Prolonged inhalation may be harmful

Skin Contact: No information available

Eye Contact: Causes eye irritation

Ingestion: No information available

Symptoms Related to the Physical, Chemical and Toxicological Characteristics: Direct contact with eyes may cause temporary irritation. Coughing.

Information on Toxicological Effects:

Acute Toxicity: No information available

Skin Corrosion/Irritation: No information available.

Serious eye damage/irritation: Causes eye irritation.

Respiratory or Skin Sensitization: No information available

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP or OSHA.

Germ Cell Mutagenicity: No information available

Reproductive Toxicity: No information available

Development Toxicity: No information available

Specific Target Organ Toxicity – single exposure: No information available

Specific Target Organ Toxicity – repeated exposure: No information available

Aspiration Hazard: No information available

Chronic Effects: Prolonged inhalation may be harmful

Additional Information: RTECS: VW0400000

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

Section 12- ECOLOGICAL INFORMATION

Toxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability: No information available

Bioaccumulation/Accumulation: No information available

Mobility in Soil: No information available

Results of PBT & vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

Other Adverse Effects: No information available.

Section 13- DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Collect and reclaim or dispose in sealed containers to a licensed disposal company. Dispose of contaminated packaging as unused product. Dispose of contents/container in accordance with local/regional/national/international regulations. Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies.

Section 14- TRANSPORT INFORMATION

DOT: Not dangerous goods

IATA: Not dangerous goods

IMDG/IMO: Not dangerous goods

Section 15- REGULATORY INFORMATION

US Federal Regulations: This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the US EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt.D): Not regulated

U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052): Not regulated

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

SARA 302 Extremely Hazardous Substance: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

SARA 304 Emergency Release Notification: Not regulated

SARA 311/312 Hazardous Chemical: Yes – Classified Hazard Categories: Combustible Dust

SARA 313 (TRI Reporting): This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313

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

Safe Drinking Water Act (SDWA): Not regulated

US California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

Massachusetts Right To Know Components: Silicon (CAS No. 7440-21-3)

New Jersey Right To Know Components: Silicon (CAS No. 7440-21-3)

Pennsylvania Right To Know Components: Silicon (CAS No. 7440-21-3)

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.

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