MATERIALS SAFETY DATA SHEET (MSDS) Silicon dioxide (SiO_2)	MSDS Number:	
	Version number:	
	Date issued:	
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1. Product Identification

Trade Name	Silicon dioxide
Recommended Use	Laboratory chemicals
Uses advised against	Food, drug, pesticide or biocidal product use

Manufacturer/Importer/Supplier/Distributor information

Manufacturer Supplier
E-Mail
Contact Person
Emergency Telephone

2. Hazard(s) identification

Hazard Statements	May cause cancer. May cause damage to organs through prolonged or repeated exposure.
Signal Word:	Danger

Precautionary Statements	Do not handle until all safety precautions have been read and understood. Do not breathe dust .Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/ protective clothing/ eye protection/ face Protection. IF exposed or concerned: Get medical advice/ attention

HMIS Health Ratings

Health:	**1**
Flammability:	**0**
Physical	**0**

3. Composition and ingredient information

Chemical name	CAS number	%
Silicon Oxide (SiO2)	**7631-86-9, 14808-60-7**	**95**

4. First-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Inhalation	Remove to fresh air. Get medical attention immediately, if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Most important symptoms and effects	None reasonably foreseeable
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
Special hazards arising from the substance or mixture	Silicon oxides
Advice for firefighters	Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures	Avoid dust formation. Avoid breathing vapors, mist, or gas.
Environmental precautions	No special environmental precautions required.
Methods and materials for containment and cleaning up	Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents. Strong acids. Strong bases.

8. Exposure Controls/ Personal Protection

Exposure Guidelines

Component	OSHA PEL	NIOSH IDLH
Silica, amorphous	(Vacated) TWA: 6 mg/m3	IDLH: 3000 mg/m3 TWA: 6 mg/m3

Legend

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures	Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.
Personal Protective Equipment	
Eye/face Protection	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.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	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.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Powder Solid
Color	White to translucent
Form	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor	Odorless
Water Solubility	Insoluble
Boiling Point	2230 °C
Melting Point	1610 °C
Flash Point	Not Applicable
Autoignition Temperature	Not Applicable
Density	2.6 g/cm3
Molecular weight	60.08 g/mol
pH (at 40g/L)	3.6 - 4.3

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions
Conditions to Avoid	Incompatible products. Excess heat. Avoid dust formation
Incompatible Materials	Strong oxidizing agents, Strong acids, Strong bases
Hazardous Decomposition Products	Silicon dioxide
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing

11. Toxicological information

Acute Toxicity

Product Information and Component Information

Component	LD50 Oral	LD50 Dermal
Silica, amorphous)	>5000 mg/kg (Rat)	>2000 mg/kg (Rabbit)

Toxicologically Synergistic Products No information available

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

Irritation Irritating to eyes, respiratory system and skin

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
Silica, amorphous	7631-86-9	Not listed	Known	Not listed	Not listed

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 None known

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

Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Water Flea
Silica, amorphous	EC50:440 mg/L/72h	LC50:5000 mg/L/96 h	EC50: 7600 mg/L/48h

Persistence and Degradability Insoluble in water

Bioaccumulation/ Accumulation No information available.

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

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

DOT	TDG	IATA	IMDG/IMO
Not regulated	Not regulated	Not regulated	Not regulated

15. Regulatory information

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)
Silica, amorphous	7631-86-9	Listed	Not applicable	Not applicable	Not applicable

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)
Silica, amorphous	7631-86-9	Not applicable	Not applicable	Not applicable	Not applicable

16. Any other information

History

Product name

Product code

Date of printing

Date of issue/Date of revision

Date of previous issue

Version

Prepared by

17. Change Details