



Centre Anti-Poison pour le Québec: (800) 463-5060
Tél. (Qc): (418) 660-8666 / 800-890-8666
Fax. (Qc): (418) 660-8998

SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier SILICON (POWDER ~325 mesh)		Product Use Laboratory use	
Chemical formula Si		Product code SR-0114	Molar weight 28,09
Chemical name / Commercial name / Synonymous SILICON POWDER, SILICIUM EN POUDRE AMORPHE, DEFOAMER S-10			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666	CENTRE ANTI-POISON DU QUÉBEC 800-463-5060	
Date SDS 8/13/2020	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Flammable solids category 2 Lésions oculaires graves/irritation oculaire category 2B
Signal Word	WARNING
Hazards statements (H)	H228 Flammable solid. H320 Causes eye irritation.
Precautionary statements (P)	P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ventilating/lighting equipment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P264 Wash the areas of the body that have been in contact with the product after handling. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/attention. P370 + P378 In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide for extinction.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Significant; 4=Extreme)
	Health 1 Fire 2 Reactivity 0 Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Silicium	7440-21-3	<=100

SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Inhalation	If breathing is difficult, give oxygen. If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	If the person is conscious, rinse the mouth with water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Consult a physician.
Most important symptoms and effects (acute and delayed)	Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	Yes
Ignition conditions	Strong oxidizing agents, heat, sparks and open flame. Flammable in the presence of a source of ignition, through friction or retained heat. Keep away from heat/sparks/open flame/hot surface. Fine dust in sufficient concentration may be combustible, or explode if confined to a small space and subject to a source of ignition.
Suitable extinguishing media	Dry powder or dry sand.
Unsuitable extinguishing media	Do not use water.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. - silicon oxides.
Special fire and explosion hazards	May react violently with incompatible products (Ref Section 10). Dust may form explosive mixtures with air. Reacts with water liberating flammable and / or explosive gas.
Special protective equipment and precautions for firefighters	Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up / Personnel precautions, protective equipment	Evacuate personnel to safe areas. Cut off all sources of ignition. Ensure a good ventilation of the premises. Avoid dust formation. Avoid breathing dust. Pick up with a broom, taking care not to scatter dust. When handling, wear appropriate safety equipment. Use a respirator as needed. Dispose of residues in a container provided for the disposal of hazardous materials.
---	---

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry place. Keep container tightly closed and store away from heat, water, moisture, and incompatible products. Keep container tightly closed in a dry and well-ventilated place. Store under nitrogen. Keep in a dry place. Over time, pressure may increase causing containers to burst Moisture sensitive.
Methods of handling	Always open containers slowly to allow any excess pressure to vent. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14)

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Silicon	7440-21-3	TWA	10.000000 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWAEV	10.000000 mg/m ³	Canada. Ontario OELs
		TWA	10.000000 mg/m ³	Canada. British Columbia OEL
		TWA	3.000000 mg/m ³	Canada. British Columbia OEL
		TWA	10.000000 mg/m ³	Canada. British Columbia OEL
Remarks	The 8-hour TWA listed in the Table is for the total dust. The substance also has an 8-hour TWA of 3 mg/m ³ for the respirable fraction.			
		TWAEV	10.000000 mg/m ³	Canada. Ontario OELs
		TWAEV	10 mg/m ³	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1 %.			
	TWAEV 10.000000 mg/m ³ Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants			
	The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1 %.			
		TWA	10.000000 mg/m ³	Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.
		TWA	10.000000 mg/m ³	Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.
		TWAEV	10.000000 mg/m ³	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1 %.			

Data source	Sigma-Aldrich.
Ventilation	Fan.
Respiratory	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Safety shoes.
Clothing	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid.
Appearance	Poudre grise (granulométrie ~325 mesh).
Odour	Inodore.
Odour threshold	Data not available
pH	Donnée non-disponible.
Melting point / Freezing point	1414°C
Initial boiling point	3265°C
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Flammability	Yes
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	1.0 mm @ 1724°CmmHg
Vapour density	Data not available
Relative density	2.33g/cm ³
Solubility	Insoluble dans l'eau.
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	>400°C
Decomposition temperature	Data not available
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	May form combustible dust concentrations in the air.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid exposure to air, light and moisture. Avoid contact with incompatible materials. Heat, flames and sparks. Avoid dust formation.
Incompatible material	Violent reactions on contact with the following products: aluminum and lead oxide, alkaline carbonates, chlorine, strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), hydrofluoric acid, alkalis, calcium, fluorides, sodium-potassium alloys, heat, water and humidity.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - silicon oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

SILICON (POWDER ~325 MESH)

Routes of exposure	Inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and tearing.
- Skin	Irritation and dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Nervous disorders, cough, dyspnea, headache, dizziness, nausea and vomiting. NOTE: elemental silicon is an inert material which does not seem to have the property of inducing pulmonary fibrosis (silicosis) as recognized for silica and silicates.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Gastrointestinal disorders, cramps, diarrhea, headache, dizziness, convulsions, nausea and vomiting.
Chronic exposure effects / symptoms	Burning sensation, dermatitis, nervous disorders, chest pain, cough, dyspnea, headache, dizziness, confusion, irritability, fatigue, fever, metallic taste in mouth, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 3,160 mg/kg. LD50 Oral - Rabbit - 5000 mg/kg.
CL50 (specify species and route of entry)	LC50 - Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

Available ecological information	No
----------------------------------	----

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	1346
UN Proper shipping name	SILICIUM EN POUDRE AMORPHE
Transport hazard class(es)	4.1 Flammable solids
Packing group	III
Limited quantity index	5kg
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Flammable solids category 2 Lésions oculaires graves/irritation oculaire category 2B
--------------	---

SECTION 16 - OTHER INFORMATION

Further information

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

Last Update: 8/13/2020