



SAFETY DATA SHEET

MATERION

1. Identification

Product identifier Silicon Powder

Other means of identification

SDS number 2LB

Materion Code 2LB

CAS number 7440-21-3

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Materion Advanced Chemicals Inc.

Address 407 N 13th Street
1316 W. St. Paul Avenue
Milwaukee, WI 53233
United States

Telephone 414.212.0290

E-mail advancedmaterials@materion.com

Contact person Laura Hamilton

Emergency phone number Chemtrec 800.424.9300

2. Hazard(s) identification

Physical hazards Flammable solids Category 2

Health hazards Serious eye damage/eye irritation Category 2B

Environmental hazards Not classified.

OSHA defined hazards Combustible dust

Label elements



Signal word Warning

Hazard statement Causes eye irritation. Flammable solid.

Precautionary statement

Prevention Minimize dust generation and accumulation. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Wear protective gloves/protective clothing/eye protection/face protection.

Response In case of fire: Use appropriate media to extinguish.

Storage Store away from incompatible materials. Store in cool place.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonyms	CAS number	%
Silicon Powder		7440-21-3	100

4. First-aid measures

Inhalation	Move into fresh air and keep at rest. If breathing stops, provide artificial respiration. Consult a physician for specific advice.
Skin contact	Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.
Eye contact	Flush thoroughly with water for at least 15 minutes. Get medical assistance.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth thoroughly. Seek medical advice.
Most important symptoms/effects, acute and delayed	Not available.
General information	If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures

Suitable extinguishing media	Dry sand. Alcohol resistant foam. Dry chemicals. Carbon dioxide or dry powder.
Unsuitable extinguishing media	Not available.
Specific hazards arising from the chemical	Not applicable.
Special protective equipment and precautions for firefighters	Wear self-contained breathing apparatus and protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Avoid generation and spreading of dust. Avoid inhalation of dust and vapors. Ensure adequate ventilation. Remove sources of ignition. Keep unnecessary personnel away.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Vacuum or sweep up material and place in a disposal container. Avoid the generation of dusts during clean-up.
Environmental precautions	Avoid release to the environment.

7. Handling and storage

Precautions for safe handling	Do not breathe dust/fume. All handling to take place in well-ventilated area. Do not smoke, use open fire or other sources of ignition. Practice good housekeeping.
Conditions for safe storage, including any incompatibilities	Not available.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value	Form
Silicon Powder (CAS 7440-21-3)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.

US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value	Form
Silicon Powder (CAS 7440-21-3)	TWA	5 mg/m ³	Respirable.
		10 mg/m ³	Total

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Not available.
Individual protection measures, such as personal protective equipment	
Eye/face protection	If contact is likely, safety glasses with side shields are recommended.

Skin protection	
Hand protection	Use protective gloves. Wash hands after handling.
Other	Protective overgarments or work clothing must be worn by persons who may become contaminated with particulate during activities.
Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment.
Thermal hazards	Not available.

9. Physical and chemical properties

Appearance	Powder.
Physical state	Solid.
Form	Powder.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	2570 °F (1410 °C)
Initial boiling point and boiling range	4271 °F (2355 °C)
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	< 0.0000001 kPa (77 °F (25 °C))
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Insoluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	2.33 g/cm ³ estimated at 25 °C
Molecular formula	Si
Molecular weight	28.09 g/mol
Specific gravity	2.33 at 25 °C
Surface tension	720 mN/m (2732 °F (1500 °C))

10. Stability and reactivity

Reactivity	Not available.
Chemical stability	Material is stable under normal conditions.

Possibility of hazardous reactions	Not available.
Conditions to avoid	Heat, sparks, flames. Minimize dust generation and accumulation.
Incompatible materials	Strong oxidizing substances. Alkalis.
Hazardous decomposition products	Not available.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.
Ingestion	Not available.

Symptoms related to the physical, chemical and toxicological characteristics Not available.

Information on toxicological effects

Acute toxicity	Causes skin and eye irritation.
Skin corrosion/irritation	Not available.
Serious eye damage/eye irritation	Causes eye irritation. May cause severe irritation to eyes.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	Not available.
Germ cell mutagenicity	Not available.

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	Not available.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not available.

12. Ecological information

Ecotoxicity	No ecotoxicity data noted for the ingredient(s).
Persistence and degradability	Not available.
Bioaccumulative potential	Not available.
Mobility in soil	Not available.
Other adverse effects	Not available.

13. Disposal considerations

Disposal instructions	Dispose in accordance with all applicable regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.

Waste from residues / unused products Not available.

Contaminated packaging Not available.

14. Transport information

DOT

UN number	UN1346
UN proper shipping name	Silicon powder, amorphous
Transport hazard class(es)	
Class	4.1
Subsidiary risk	-
Label(s)	4.1
Packing group	III
Special precautions for user	Not available.
Special provisions	A1, IB8, IP3, T1, TP33
Packaging exceptions	None
Packaging non bulk	213
Packaging bulk	240

IATA

UN number	UN1346
UN proper shipping name	Silicon powder, amorphous
Transport hazard class(es)	
Class	4.1
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Not available.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN1346
UN proper shipping name	SILICON POWDER, AMORPHOUS
Transport hazard class(es)	
Class	4.1
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-G
Special precautions for user	Not available.

DOT





15. Regulatory information

US federal regulations

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

Classified hazard categories Flammable (gases, aerosols, liquids, or solids)
Combustible dust
Serious eye damage or eye irritation

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

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.

16. Other information, including date of preparation or last revision

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Disclaimer Not available.