SAFETY DATA SHEET

SDS-800-rev2 Issue Date: 01/02/2024

AMORPHOUS SILICA MICROSPHERES AND NANOSPHERES

1. IDENTIFICATION OF SUBSTANCE

1.1 PRODUCT NAME(S)	Amorphous Silica Microspheres and Nanospheres
1.2 PRODUCT IDENTIFIER(S)	SiO2MS, SiO2NS, SiO2MS-RHB
1.3 INTENDED USE	Industrial and research applications
1.4 SUPPLIER'S DETAILS	Cospheric LLC, PO Box 636, Somis, CA 93066
	info@cospheric.com www.cospheric.com
1.5 EMERGENCY TELEPHONE	+1-805-687-3747 Monday-Friday, 08:00-17:00 PST [UTC-8]

2. HAZARDS IDENTIFICATION

2.1 HAZARD CLASSIFICATION	Not classified as a hazardous material.
2.2 LABEL ELEMENTS	None.
2.3 HAZARDS NOT OTHERWISE CLASSIFIED	Spilled material is extremely slippery. Dust may cause irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NUMBER	% (W/W)
Silicon dioxide, amorphous	7631-86-9	>99%

4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

Eye contact	Rinse with plenty of water. Seek medical advice if symptoms persist.
Skin contact	If symptoms occur, wash with soap and water.
Inhalation	If symptoms occur, move to fresh air. Seek medical advice if necessary.
Ingestion	If symptoms occur, seek medical advice.

4.2 IMPORTANT SYMPTOMS/EFFECTS, ACUTE OR DELAYED

Inhalation of high concentrations of dust may cause respiratory irritation.

5. FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Use extinguishing measures that are appropriate to local circumstances and the surrounding fire.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

None known.

5.3 SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved) and full protective gear.

6. ACCIDENTIAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Follow precautions for safe handling described in this safety data sheet (Section 8).

6.2 ENVIRONMENTAL PRECAUTIONS

Dispose of any waste according to prescribed federal, state, local and competent authority guidelines.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEAN UP

Collect spillage with shovel, broom or the like. Transfer to a container for disposal.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Avoid handling practices that cause dust formation. Avoid inhalation of high concentrations of dust. Observe occupational exposure limits and minimize the risk of inhalation of dust.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store in tightly closed original container in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Silica, amorphous		
OSHA	Permissible Exposure Limit (PEL)	0.8 mg/m^3
The OSHA PEL reported as 80 mg/m^3 ÷ silica; 0.8 mg/m^3 is the limit for 100% amorphous silica.		

8.2 ENGINEERING CONTROLS

Avoid handling practices that cause dust formation. Use local exhaust ventilation to prevent or control exposure.

8.3 INDIVIDUAL PROTECTION MEASURES (PERSONAL PROTECTIVE EQUIPMENT)

Respiratory protection:	When handling practices cause dust formation, select respiratory protection appropriate for the particle size of the material.
Eye/face protection:	Chemical goggles.
Skin protection:	Wear suitable protective clothing and gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White solid spherical particles
Relative density	Per product specification (1-2g/cc)
Softening Temperature	Per product specification
Flammability	Not classified as flammable.
Flammable limits	Not-applicable
Auto-ignition temperature	Not-applicable
Decomposition temperature	No information available
Odor	Odorless
Vapor pressure	Not-applicable

Vapor density	Not-applicable
pH	Not-applicable
Melting point	Not-applicable
Solubility in water	Insoluble
Initial boiling point	Not-applicable
Flash point	Not-applicable
Evaporation rate	Not-applicable
Partition coefficient	Not-applicable
Viscosity	Not-applicable

10. STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions of use.
Chemical stability	Stable under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Likely route(s) of exposure	Dermal, inhalation

SIGNS AND SYMPTOMS OF EXPOSURE

Eye contact	Direct contact with eyes may cause temporary mechanical irritation. Signs and symptoms may include pain, redness.
Skin contact	Direct contact with skin may cause sensitization in hypersensitive individuals. Signs and symptoms may include redness, pain and itching.
Inhalation	Inhalation above recommended exposure levels may cause respiratory irritation including cough.
Ingestion	No harmful effects expected in amounts likely to be ingested by accident. May cause discomfort if swallowed.

TOXICOLOGICAL DATA

Acute toxicity	Oral LD_{50}>5000 mg/kg (rat)
	4-hour LC_{50}>0.14mg/L (rat)
Skin corrosion/irritation	Non-irritating (rabbit)
Serious eye damage/eye irritation	Non-irritating (rabbit)
Respiratory or skin sensitization	No information available/not sufficient for classification
Germ cell mutagenicity	Not mutagenic (in vitro and in vivo)
Carcinogenicity	Not listed as a carcinogen (OSHA, NTP, IARC)
Reproductive toxicity	No information available/not sufficient for classification
STOT-single exposure	No information available/not sufficient for classification
STOT-repeated exposure	No information available/not sufficient for classification
Aspiration hazard	No information available/not sufficient for classification

SAFETY DATA SHEET

SDS-800-rev2 Issue Date: 01/02/2024

AMORPHOUS SILICA MICROSPHERES AND NANOSPHERES

12. ECOLOGICAL INFORMATION

Toxicity	No information available
Persistence and degradability	No information available
Bioaccumulation potential	No information available
Mobility in soil	No information available

13. DISPOSAL CONSIDERATIONS

Dispose of any waste according to prescribed federal, state, local and competent authority guidelines.

14. TRANSPORTATION INFORMATION

This product is not subject to regulations for the transport of hazardous materials (DOT, IATA, IMO).

15. REGULATORY INFORMATION

This SDS has been prepared to meet the US OHSA Hazard Communication Standard, 29 CFR 1910.1200.

16. EU REACH COMPLIANCE DECLARATION

The product(s) listed above do not contain any of the REACH SVHC compounds in concentrations above 1000PPM.

17. OTHER INFORMATION

The information contained in this document is correct to the best of our knowledge at the date of publication. It should not be viewed as all inclusive, but as a guide only. It does not represent any guarantee of the properties of the product. Cospheric LLC shall not be held liable for any damage resulting from handling of or from contact with the above product. For these reasons, it is important that product users carry out their own tests to satisfy themselves as to the suitability of the safety precautions for their own intended applications.