



SAFETY DATA SHEET

SDS-804-rev2 Issue Date: 01/02/2024

SILVER-COATED AMORPHOUS SILICA MICROSPHERES

1. IDENTIFICATION OF SUBSTANCE

| | |
|---------------------------|--|
| 1.1 PRODUCT NAME(S) | Silver-Coated Amorphous Silica Microspheres |
| 1.2 PRODUCT IDENTIFIER(S) | SiO2MS-AG |
| 1.3 INTENDED USE | Industrial and research applications |
| 1.4 SUPPLIER'S DETAILS | Cospheric LLC, PO Box 636, Somis, CA 9066 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. |
| GHS Classification | H400 Very toxic to aquatic life H410 Very toxic to aquatic life with long lasting effects |
| 2.2 LABEL ELEMENTS | None per US OSHA Hazard Communication Standard, 29 CFR 1910.1200. |
| 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 | >50% |
| Silver | 7440-22-4 | <50% |

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.



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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) for 100% amorphous silica | 0.8 mg/m ³ |
| Silver | | |
| OSHA | Permissible Exposure Limit (PEL) (dust) | 0.1mg/m ³ |

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 | Solid spherical particles – Silver |
| Relative density | Per product specification |
| Softening Temperature | Per product specification |
| Flammability | Not classified as flammable. |



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| | |
|---------------------------|--------------------------|
| 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 | Avoid contact with: acetylene, acetylene compounds, ammonia, aziridine, bromide azide, 3-bromopropyne, carboxylic acids, chlorine trifluoride, ethylene oxide, ethyl hydroperoxide, ethyleneimine, hydrogen peroxide, iodoform, nitric acid, ozonides, oxalic acid, peroxomonosulfur. |
| 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. Prolonged or repeated exposure to silver may cause argyria – gray pigmentation of eyes, skin and mucous membranes. |
| Inhalation | Inhalation above recommended exposure levels may cause respiratory irritation including cough. |
| Ingestion | Signs and symptoms may include abdominal pain, vomiting and diarrhea. |

TOXICOLOGICAL DATA

| | |
|-----------------------------------|--|
| Acute toxicity | Oral LD ₅₀ >2000 mg/kg (rat) |
| Skin corrosion/irritation | No information available/not sufficient for classification |
| Serious eye damage/eye irritation | No information available/not sufficient for classification |



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| | |
|-----------------------------------|--|
| 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 |

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 OSHA 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.

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