1. IDENTIFICATION OF SUBSTANCE

1.1 PRODUCT NAME(S)  Hollow Glass Microspheres
1.2 PRODUCT IDENTIFIER(S)  HGMS
1.3 INTENDED USE  Industrial and research applications
1.4 SUPPLIER’S DETAILS  Cospheric LLC, PO Box 6762, Santa Barbara, CA 93160
                  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  Dust may cause irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NUMBER</th>
<th>% (W/W)</th>
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<tbody>
<tr>
<td>Glass oxide microspheres</td>
<td>308066-94-6</td>
<td>&gt;99.9%</td>
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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/PERSOAL PROTECTION

8.1 CONTROL PARAMETERS
This product is not a hazardous material. The exposure limit for nuisance dust is referenced.
Nuisance Dust (Particles Not Otherwise Regulated)
OSHA Permissible Exposure Limit (PEL)  Respirable fraction  5mg/m3
                                             Total dust       15mg/m3

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 clear to opaque spheres or powder
Relative density          Per product specification (<1g/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
SAFETY DATA SHEET  
SDS-180-rev1 Issue Date: 07/20/2017

HOLLOW GLASS MICROSPHERES

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 No information available/not sufficient for classification
Skin corrosion/irritation No information available/not sufficient for classification
Serious eye damage/eye irritation No information available/not sufficient for classification
Respiratory or skin sensitization No information available/not sufficient for classification
Germ cell mutagenicity No information available/not sufficient for classification
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
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<tr>
<th>12. ECOLOGICAL INFORMATION</th>
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<tbody>
<tr>
<td>Toxicity</td>
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<tr>
<td>Persistence and degradability</td>
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<tr>
<td>Bioaccumulation potential</td>
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<tr>
<td>Mobility in soil</td>
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<th>13. DISPOSAL CONSIDERATIONS</th>
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<td>Dispose of any waste according to prescribed federal, state, local and competent authority guidelines.</td>
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<th>14. TRANSPORTATION INFORMATION</th>
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<td>This product is not subject to regulations for the transport of hazardous materials (DOT, IATA, IMO).</td>
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<th>15. REGULATORY INFORMATION</th>
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<td>This SDS has been prepared to meet the US OHSA Hazard Communication Standard, 29 CFR 1910.1200.</td>
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<th>16. OTHER INFORMATION</th>
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<td>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.</td>
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