# Safety Data Sheet

## Mia 64 Ceramic Spheres

### Section 1 Identification

**Product identifiers**

Product name: Mia 64 Ceramic Spheres

**Relevant identified uses of the substance or mixture and uses advised against**

Identified uses: Hollow, light-weight filler

**Details of the supplier of the safety data sheet:**

Freeman Manufacturing and Supply Company  
1101 Moore Road, Avon, OH 44011  
Phone (440) 934-1902  
FAX (440) 934-7200

24 Hour Emergency Phone Number: (800) 424-9300 (CHEMTREC)

### Section 2 Hazards Identification

**GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)**

- Specific Target Organ Toxicity, repeated exposure, Category 2 (Respiratory Tract)
- Specific Target Organ Toxicity, single exposure, Category 3

**GHS Label elements**

- Signal word: Danger

**Hazard statements**

- May cause damage to lungs through prolonged or repeated exposure if inhaled.
- May cause respiratory irritation.

**Precautionary statements**

**Prevention**

- Do not breath dust.
- Wear protective gloves/eye protection/face protection.
- Use outdoors or in well ventilated area.
- Do not eat, drink, or smoke when using this product.

**Response**

- If inhaled: Remove to fresh air and keep comfortable for breathing.
- Get medical advice/attention if you feel unwell.
- If on skin: Wash with plenty of soap and water.
- If skin irritation or rash occurs: Get medical advice/attention.
- If in eyes: Rinse continuously with water for at least 15 minutes.
- Remove contact lenses, if present and easy to do.
- If eye irritation persists: Get medical advice/attention.

**Storage**

- Store in a well-ventilated place.
Section 2 Hazards Identification continued

Disposal
Dispose of contents and container to an appropriate waste site in accordance with local and national regulations.

Hazards not otherwise classified (HNOC) or not covered by GHS
None known

Section 3 Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS Number</th>
<th>Weight Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fly ash; Cenospheres</td>
<td>68131-74-8</td>
<td>&gt;99.0</td>
</tr>
<tr>
<td>Crystalline Silica (Quartz)</td>
<td>14808-60-7</td>
<td>&lt;1.5</td>
</tr>
<tr>
<td>Calcium oxide</td>
<td>1305-78-8</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Potassium oxide</td>
<td>12136-45-7</td>
<td>&lt;1.0</td>
</tr>
</tbody>
</table>

Section 4 First Aid Measures

Description of first aid measures

**If inhaled**
Move person into fresh air. Get medical attention if respiratory symptoms persist.

**In case of skin contact**
Wash off with soap and plenty of water. Get medical attention if symptoms occur.

**In case of eye contact**
Flush eyes with water for at least 15 minutes. Remove contact lenses if present and easy to do. Get medical attention if irritation occurs or persists.

**If swallowed**
No specific first aid measures are required.

Most important symptoms and effects, both acute and delayed

**Acute effects:** Direct exposure may cause respiratory irritation, eye irritation and skin irritation. The product dust can dry and irritate the skin and cause dermatitis and can irritate eyes and skin through mechanical abrasion.

**Chronic effects:** Chronic exposure may cause lung damage from repeated exposure. Chronic inhalation of dusts containing respirable crystalline silica may result in silicosis.

Indication of any immediate medical attention and special treatment needed
Seek first aid or call a doctor or Poison Control Center if contact with eyes occurs and irritation remains after rinsing.

Section 5 Fire-Fighting Measures

**Suitable extinguishing media**
Product is not flammable. Use extinguishing media appropriate for surrounding fire.

**Special hazards arising from the substance or mixture**
None known.

**Advice for firefighters**
Wear self-contained breathing apparatus for firefighting if necessary.
Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Avoid breathing dust. For personal protection see section 8.

Environmental precautions
Do not let product enter drains or waterways.

Methods and materials for containment and cleaning up
Do not use brooms or compressed air to clean surfaces. Use dust collection vacuum and extraction systems. Dampened material should be removed by mechanical means and recycled or disposed of according to local and national regulations. Keep in suitable, closed containers for disposal.

Section 7 Handling and Storage

Precautions for safe handling
Practice good housekeeping. Use adequate exhaust ventilation, dust collection and/or water mist to maintain airborne dust concentrations below permissible exposure limits (note: respirable crystalline silica dust may be in the air without a visible dust cloud). Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Maintain and test ventilation and dust collection equipment. In cases of insufficient ventilation, wear a NIOSH approved respirator for silica dust when handling or disposing dust from this product. Avoid contact with skin and eyes. Wash or vacuum clothing that has become dusty. Avoid eating, smoking, or drinking while handling the material.

Conditions for safe storage, including any incompatibilities
Store in a dry, cool, clean, and ventilated area to avoid heat and humidity.

Section 8 Exposure Controls / Personal Protection

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>OSHA PEL</th>
<th>NIOSH REL</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>TWA</td>
<td>TWA</td>
</tr>
<tr>
<td>Calcium Oxide</td>
<td>5 mg/m³</td>
<td>2 mg/m³</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>Particulates not otherwise regulated</td>
<td>15 mg/m³</td>
<td>15 mg/m³</td>
<td>not establised</td>
</tr>
<tr>
<td>(total dust)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Particulates not otherwise regulated</td>
<td>5 mg/m³</td>
<td>5 mg/m³</td>
<td>not establised</td>
</tr>
<tr>
<td>(respirable fraction)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Quartz</td>
<td>30 mg/m³/</td>
<td>not establised</td>
<td>not establised</td>
</tr>
<tr>
<td>(%SiO₂+2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respirable Crystalline Silica</td>
<td>10 mg/m³/</td>
<td>0.05 mg/m³</td>
<td>0.025 (α-quartz &amp; cristobalite)</td>
</tr>
<tr>
<td>(%SiO₂+2)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate engineering controls
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits. An eye wash station and safety shower should be located near the workstation.
Section 8 Exposure Controls/Personal Protection continued

Personal protective equipment
   Eye/face protection
   Use safety glasses equipped with side shields. Avoid wearing contact lenses.

Skin protection
   Hand Protection
   With product at ambient temperatures, use disposable neoprene, butyl rubber, nitrile, or other suitable material gloves. Gloves should be replaced at the first sign of wear.

Body Protection
   Prevent skin contact when handling material.

Respiratory Protection
   The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used.

Safety Stations
   Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

General Hygienic Practices
   Avoid breathing vapor or mist. Avoid contamination of food, beverages, or smoking materials. Wash thoroughly after handling, and before eating, drinking or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse.

Section 9 Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Fine tan/gray particulate</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>No data available</td>
</tr>
<tr>
<td>VOC Content</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point &amp; boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not combustible</td>
</tr>
<tr>
<td>Explosive limit - LEL</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density (g/cc)</td>
<td>0.60 – 0.95</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Slight</td>
</tr>
<tr>
<td>Coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Section 10 Stability and Reactivity

Reactivity
- Non-reactive

Chemical stability
- Stable under normal use and recommended storage conditions

Possibility of hazardous reactions
- None

Conditions to avoid
- Product can become airborne in moderate winds. Dry material should be stored in silos.
  Materials stored out of doors should be covered or maintained in a damp condition.

Incompatible materials
- None known

Hazardous decomposition products
- None known

Section 11 Toxicological Information

Information on toxicological effects
- Acute oral toxicity: LD50 > 2000 mg/kg
- Acute inhalation toxicity: LD50 > 5.0 mg/L
- Acute dermal toxicity: LD50 > 2000 mg/kg
- Skin corrosion/irritation: Not irritating to skin
- Serious eye damage/eye irritation: Slight, but reversible
- Respiratory or skin sensitization: Not a respiratory or dermal sensitizer
- Germ cell mutagenicity: Not mutagenic in in vitro and in vivo assays with or without metabolic activation

Carcinogenicity:
- IARC: Respirable Crystalline Silica Quartz is known to be carcinogenic to humans.
- NTP: Respirable Crystalline Silica has been identified as a carcinogen.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.

Reproductive toxicity: Not expected to be a hazard

Specific target organ toxicity - single exposure
- No specific target organ toxicity after a single exposure to the substance is expected; however, presence as a nuisance dust may result in respiratory irritation.

Specific target organ toxicity - repeated exposure
- NOAEC=4.2 mg/m³ dust; as no effects were observed at the highest dose tested during the 180 day inhalation study, it is not possible to assess the level at which toxicologically significant effects may occur.

Aspiration hazard: Not applicable

Section 12 Ecological Information

Toxicity: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
Results of PBT & vPvB assessment: No data available
# Section 13 Disposal Considerations

**Disposal**

Use safety containers for disposal. Contact a licensed contractor for detailed recommendations. Follow applicable Federal, State, and local regulations.

# Section 14 Transport Information

**DOT:** Not regulated  
**TDG:** Not regulated  
**IMDG:** Not regulated  
**IATA:** Not regulated

# Section 15 Regulatory Information

## US Federal Regulations

- **RCRA Hazardous Waste Number (40 CFR 261.33):** Not listed  
- **RCRA Hazardous Waste Classification (40 CFR 261):** Not classified  
- **CERCLA Hazardous Substance Reportable Quantity (RQ):** None  
- **SARA 311/312 Codes:** Not subject to reporting requirements  
- **SARA Toxic Chemical (40 CFR 372.65):** Not listed  
- **TSCA Inventory Status:** All ingredients listed on TSCA inventory requirements

## US State Regulations

- **California Proposition 65:** WARNING: This product can expose you to Respirable Crystalline Silica, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Section 16 Other Information

**Disclaimer**

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