



## Material Safety Data Sheet

**TSI Incorporated**  
**500 Cardigan Road**  
**Shoreview, MN 55126-3996**

24 hour Emergency telephone  
CHEMTREC: 1-800-424-9300

Outside US and Canada  
Chemtrec: 703-527-3887

Note: CHEMTREC number to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-874-2811) for assistance.

|                   |                                 |
|-------------------|---------------------------------|
| <b>Section 1.</b> | <b>CHEMICAL PRODUCT SECTION</b> |
|-------------------|---------------------------------|

**Product Name: Spherical® Hollow Glass Spheres**  
**Product description: Spherical glass powder**  
**Chemical Name: Glass oxide**

**Product Number: 10089**

|                   |   |
|-------------------|---|
| <b>Section 2.</b> | <b>COMPOSITION/INFORMATION ON INGREDIENTS</b> |
|-------------------|---|

| Chemical and Common Name | CAS Registry Number | Wt. % | OSHA PEL                              | ACGIH TLV                              |
|--------------------------|---------------------|-------|---------------------------------------|--|
| Glass, oxide; Glass      | 65997-17-3          | ~100% | 15mg/m3 total dust, 5mg/m3 respirable | 10 mg/m3 inhalable, 3 mg/m3 respirable |

**Section 3.****HAZARD IDENTIFICATION**

|                     |   |
|---------------------|---|
| Emergency Overview: | Noncombustible white powder. Causes minimal eye irritation. Spilled material is extremely slippery. |
| Eye contact:        | Causes minimal irritation to the eyes.  |
| Skin contact:       | Non-irritating to the skin.   |
| Inhalation:         | Dust may cause respiratory tract irritation.  |
| Ingestion:          | No known hazard.  |
| Chronic hazards:    | No known chronic hazards. Not listed by NTP, IARC or OSHA as a carcinogen.                          |
| Physical hazards:   | Spilled material is extremely slippery.   |

**Section 4.****FIRST AID MEASURES**

|             |  |
|-------------|--|
| Eye:        | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists. |
| Skin:       | None required.   |
| Inhalation: | Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.     |
| Ingestion:  | None required.   |

**Section 5.****FIRE FIGHTING MEASURES**

|                           |  |
|---------------------------|--|
| Flammable limits:         | This material is noncombustible.   |
| Extinguishing Media:      | This material is compatible with all extinguishing media   |
| Hazards to fire-fighters: | See Section 3 for information on hazards when this material is present in the area of a fire.  |
| Fire-fighting equipment:  | The following protective equipment for fire fighters is recommended when this material is present in the area of a fire: rubber boots with slip-resistant soles. |

**Section 6.****ACCIDENTAL RELEASE MEASURES**

|                        |   |
|------------------------|---|
| Personal protection:   | Wear safety goggles. Wear rubber boots with slip-resistant soles, and NIOSH-approved dust respirator where dust occurs. See section 8.  |
| Environmental Hazards: | Sinks in water. No known hazard to aquatic life.  |
| Small spill cleanup:   | Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. Use appropriate Personal Protective Equipment (PPE). See section 8.   |
| Large spill cleanup:   | Keep unnecessary people away; isolate hazard area and deny entry. Do not walk through spilled material. Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. Use appropriate Personal Protective Equipment (PPE). See section 8. |
| CERCLA RQ:             | There is no CERCLA Reportable Quantity for this material.   |

**Section 7.****HANDLING AND STORAGE**

Handling: Avoid breathing dust. Keep container closed. Promptly clean up spills.  
Storage: Keep containers closed. Store in clean metal, fiber or plastic containers.

**Section 8.****EXPOSURE CONTROL / PERSONAL PROTECTION**

Engineering controls: Use with adequate ventilation. Keep containers closed. Safety shower and eyewash fountain should be within direct access.  
Respiratory protection: Use a NIOSH-approved dust respirator where dust occurs. Observe OSHA regulations for respirator use (29 C.F.R. §1910.134)  
Skin protection: Wear body-covering protective clothing.  
Eye protection: Wear safety glasses.

**Section 9.****PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Color: Glass powder White.  
Melting point: Approximately 730° C. Odorless.  
Odor:  
pH: Specific gravity: Bulk density: Solubility in water: Not applicable. Approximately 0.6 g/cm<sup>3</sup> Approximately 0.187 g/cm<sup>3</sup> (11.7 lbs/ft<sup>3</sup>) untamped, Approximately 0.390 g/cm<sup>3</sup> (24.4 lbs/ft<sup>3</sup>) tamped, Insoluble.

**Section 10.****STABILITY AND REACTIVITY**

Stability: This material is stable under all conditions of use and storage.  
Conditions to avoid: None.  
Materials to avoid: Dissolves in hydrofluoric acid.  
Hazardous decomposition products: None known.

**Section 11.****TOXICOLOGY INFORMATION**

Acute Data: When tested for primary irritation potential, a similar material caused minimal irritation to eyes and was non-irritating to skin. Dust in excess of recommended exposure limits may result in irritation to the respiratory tract.  
The acute oral toxicity of this product has not been tested. A similar spherical glass powder was nontoxic to rats at 5,000 mg/kg. All animals survived, gained weight and appeared active and healthy. There were no signs of gross toxicity, adverse pharmacologic effects or abnormal behavior.  
Subchronic Data: There are no known reports of subchronic toxicity of nonfibrous glass.  
Special Studies: There are no known reports of carcinogenicity of nonfibrous glass. Nonfibrous glass is not listed by IARC, NTP or OSHA as a carcinogen.

**Section 12. ECOLOGICAL INFORMATION**

Eco toxicity: There are no known reports of ecotoxicity of nonfibrous glass.  
Environmental Fate: This material is persistent but inert in aquatic systems. It will not bioconcentrate up the food chain.  
Physical/Chemical: Sinks in water. Insoluble in water.

**Section 13. DISPOSAL CONSIDERATIONS**

Classification: Disposed material is not a hazardous waste.  
Disposal Method: Dispose in accordance with federal, state and local regulations.

**Section 14. TRANSPORTATION INFORMATION**

DOT UN Status: This material is not regulated hazardous material for transportation.

**Section 15. REGULATORY INFORMATION**

CERCLA: No CERCLA Reportable Quantity has been established for this material.  
SARA TITLE III: Not an Extremely Hazardous Substance under §302 Not a Toxic Chemical under §313.

TSCA: All ingredients of this material are listed on the TSCA inventory.  
FDA: Glass is regarded by FDA as Generally Recognized As Safe (GRAS) for use in contact with food.

**Sections 16. OTHER INFORMATION**

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