MSDS
Material Safety Data Sheet  Name: Hollow Glass Microspheres

1. Product and Company identification
Product name: Hollow Glass Microspheres
Other name: Hollow Glass Beads, Glass Bubbles
Manufacturer: Langfang Olan Glass Beads Co., Ltd
Address: Room 1014, 10th Floor, Unit 1, Building 2, New World Centre, Guangyang District, Langfang City, Hebei, China
In case of emergency call: 0086-316-2013621
Fax: 0086-316-7166168
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The MSDS is prepared by the Laboratory of Langfang Olan Glass Beads Co., Ltd
Prepared date: April 10, 2014

2. Composition/Information

<table>
<thead>
<tr>
<th>Chemical Identify of Ingredients</th>
<th>CAS No</th>
<th>Prop’n</th>
<th>Risk Phrases as 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Borosilicate Powder</td>
<td>50815-87-7</td>
<td>&gt;99.5%</td>
<td>-</td>
</tr>
<tr>
<td>Siloxane, Methyl Hydrogen (bonded to spheres)</td>
<td>63148-57-2</td>
<td>&lt;0.5%</td>
<td>-</td>
</tr>
<tr>
<td>Moisture (loss on drying at 105°C)</td>
<td>7732-18-5</td>
<td>&lt;0.5%</td>
<td>-</td>
</tr>
<tr>
<td>Loss on Ignition at 900°C</td>
<td></td>
<td>3-7%</td>
<td></td>
</tr>
</tbody>
</table>

3. Hazards Identification
Hazard classification: It is non-hazardous material. There is no known harm to human being nor to environment. It is not explosive nor combustible.

4. First Aid Measures
Skin contact: wash with clean water
Eye contact: immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.
Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion: It is not allowed to feed unconscious person. Get medical attention immediately.

5. Fire Fighting Measures
This material is noncombustible nor explosive
6. Accidental Release Measure
Personal Protection: Wear safety goggles and dust respirator
Environment protection: Section off the scene and avoid generating dust.
Spill cleanup: Carefully shovel or sweep up spilled material and place in a suitable container for recycle or disposal.

7. Handling and Storage
Handling: Wear safety goggles, mask and gloves. Handle it gently avoiding generating dust.
Storage: Follow storage procedures. Store in well-vented and dry place.
Caution: Not for home use.

8. Exposure Controls/Personal Protection
Engineering controls: Use adequate ventilation. Keep container closed. Shower should be within direct access. Contaminated cloths should be changed.
Eye protection: wear safety goggles to avoid eye contact.
Hand protection: wear cloves.
Skin protection: wear body-covering to avoid skin contact.
Respiration protection: wear respirator to avoid inhalation.
Ingestion protection: No food or drink allowed in workplace. Wash hands or take shower before meals.
Ventilation suggestions: adequate ventilation is required to reduce the dust in the air to Health and Safety standard.

9. Physical and Chemical Properties
Appearance: fine, white powder
Odor: Odorless.
Chemical Formula: NA2SiO3/NaBO2 (fused ingredients general formulae)
Ph: Slightly alkali (7.5~11)
Bulk density: 0.09~0.18g/cm3
Solubility: Insoluble in water
Percent Volatile: >0.5%
Melting point: 800°C

10. Stability and Reactivity
Reactivity: no known reactivity.
Stability: This material is stable under all conditions of use and storage.
Conditions to avoid: humid air.
Hazardous decomposition products: none known
Ingredients: CO2, SiO2, NaO and B2O3
Particle Size: Mean: 10-125 micrometres (with a narrower range for each grade)
11. Toxicological Information
Acute Data: None known.
Cancer Data: None known.
Irritation Data: Possible irritation if inhaling, or contacting eyes and skin.

12. Ecological Information
Eco toxicity: None known
Environment data: Sinks in water and insoluble in water. It will not bioconcentrate up the food chain.

13. Disposal
Disposal method: dispose in accordance with government regulations
Package: pack in accordance with government regulations. Contaminated products need to be separated.

14. Transport Information
This material is not regulated hazardous material for transportation.

15. Regulation Information
Chemical Hazards Control Regulation (Issued by China Government at March 15, 2002)
It is not a regulated hazardous material according to Hazardous Chemical Classification and Identification (GB13690-92)

16. Other Information
Prepared date: April 10, 2014
Prepared by: Langfang Olan Glass Beads Co., Ltd.
Approved by: Langfang Olan Glass Beads Co., Ltd.

Note: 1. The information on this data sheet is believed to be accurate and it is the best information available to Langfang Olan Glass Beads Co., Ltd.
2. This document is intended only to be a guide to the appropriate precaution for handling, using, storing, transporting and disposing of Hollow Glass Sphere.
3. The information in this document only applies to Hollow Glass Sphere. It does not apply to any mixture with other substances or the product of the mixing unless it is noted in hereby.