

Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sun Microsphere Ceramic Microspheres

MANUFACTURER: Sun Microsphere Co., Ltd

ADDRESS: Sun Microsphere Production base

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Product Use:

Intended Use: Lightweight filler for Buoyancy, Caulks, Cultured Marble, Marine putty and other Applications

SECTION 2: INGREDIENTS

Ingredient C.A.S. No. % by Wt

Soda Lime Borosilicate Glass: 65997-17-3 100%

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Fine Powder (ranges from 10 microns to 200 microns)

Odor, Color, Grade: White odorless powder

General Physical Form: Hollow

Immediate health, physical, and environmental hazards:

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

Skin Contact:

Mechanical Skin irritation: Signs/symptoms may include abrasion, redness, pain, and itching.

Inhalation:

Upper Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting.

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are

followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Wash affected area with soap and water. If signs/symptoms develop, get medical attention.

Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.

If Swallowed: Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature *Not Applicable*

Flash Point *Not Applicable*

Flammable Limits - LEL *Not Applicable*

Flammable Limits - UEL *Not Applicable*

OSHA Flammability Classification: Not Applicable

5.2 EXTINGUISHING MEDIA

Non-combustible. Choose material suitable for surrounding fire.

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: No unusual fire or explosion hazards are anticipated.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Observe precautions from other sections. Call Sun Microsphere- HELPS line (+86-315-3215130) for more information on handling and managing the spill. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. Collect as much of the spilled material as possible. Use wet sweeping compound or water to avoid dusting. Sweep up. Collect the resulting residue containing solution. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. For industrial or professional use only. Avoid eye contact with dust or airborne particles.

7.2 STORAGE

Store under dry, cool under-roof conditions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Provide local exhaust ventilation at transfer points. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control dust, fume, or airborne particles. If ventilation is not adequate, use respiratory protection equipment.

8.2 PERSONAL PROTECTIVE EQUIPMENT

8.2.1 Eye/Face Protection

Avoid eye contact.

The following eye protection(s) are recommended: Filtered dust masks.

8.2.2 Skin Protection

Avoid prolonged or repeated skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

8.2.3 Respiratory Protection

Avoid breathing of dust. In most cases wear filtered dust masks.

8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

None Established

EXPOSURE LIMITS FOR PARTICULATES:

ACGIH TLV-TWA PARTICULATES (INSOLUBLE) NOT OTHERWISE CLASSIFIED (PNOC)

10 mg/m³, inhalable particulate

3 mg/m³, respirable fraction

OSHA PEL PARTICULATES NOT OTHERWISE REGULATED (PNOR)

15 mg/m³, total dust

5 mg/m³, respirable fraction

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form: Fine Powder (ranges from 10 to 200 microns)

Odor, Color, Grade: White powder

General Physical Form: Hollow

Autoignition temperature *Not Applicable*

Flash Point *Not Applicable*

Flammable Limits - LEL *Not Applicable*

Flammable Limits - UEL *Not Applicable*

Boiling point *Not Applicable*

Density 2.49 g/cc [ground into solid powder]

Vapor Density *Not Applicable*

Vapor Pressure *Not Applicable*

Specific Gravity 0.15 to 0.65 g/cc [*Ref Std:* WATER=1]

pH 9 – 9.9

Melting point *Not Applicable*

Solubility in Water Negligible

Bulk density 0.08 to 0.35g/cc

Evaporation rate *Not Applicable*

Volatile Organic Compounds *Not Applicable*

Percent volatile *Not Applicable*

VOC Less H₂O & Exempt Solvents *Not Applicable*

Viscosity *Not Applicable*

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: None known

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

Substance Condition

None known. At Elevated Temperatures

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Reclaim if feasible. For quantities <100 lbs. (50kg): dispose of waste product in a sanitary landfill. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

EPA Hazardous Waste Number (RCRA): Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

SECTION 15: REGULATORY INFORMATION

Contact Sun Microsphere for more information.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

STATE REGULATIONS

Contact Sun Microsphere for more information.

CHEMICAL INVENTORIES

Contact Sun Microsphere for more information.

INTERNATIONAL REGULATIONS

Contact Sun Microsphere for more information.

SECTION 16: OTHER INFORMATION

Hazard Classification

Health: 1 Flammability: 0 Reactivity: 0 Special Hazards: None

Hazard Classification

Health: 1 Flammability: 0 Reactivity: 0 Protection: X - See PPE section.

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