



# MSDS

## MATERIAL SAFETY DATA SHEET

Trade Name: **Extendspheres™ Ceramic Microspheres**

Date Prepared: January 2008

Page: 1 of 6

Grades: SG, TG, TG-300, SGT, DSG, A-90, 300/600, M200, 125, FM-1; 350; G-220

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: Extendspheres™ Ceramic Microspheres  
Product description: Inorganic hollow microspherical powder  
Manufacturer: Sphere One, Inc.  
601 Cumberland, Bldg 32  
Chattanooga, TN 37404 USA  
Phone number: 423-629-7160  
Fax number: 423-698-0614  
In case of emergency call: 1 800-424-9300  
For customer service call: 1 800-252-0039

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ceramic Microspheres	C.A.S No.	% by Wt.	
Coal Fired Fly Ash Bi-Product	68131-74-8	100%	
Crystalline Silica (SiO <sub>2</sub> +2) (From Fly Ash)	14808-60-7	< 1.5%	Particulates not otherwise Regulated (PNOR) 10mg/m3 Total .05mg/m3 Respirable

Ceramic Microspheres contain <1% particle below 10um which puts most of these compounds outside respirable limits.

### 3. HAZARDS IDENTIFICATION

#### Emergency Overview:

**Odor, Color, Grade:** Low density fine powder (between 10um and 600um), gray to white, odorless.

**General Physical Form:** Free Flowing Powder

**Emergency Overview:** Gray to white, odorless, powder. May cause irritation or abrasion to the eyes. May cause dehydration and irritation to skin. Dust causes irritation to respiratory tract. Noncombustible. Floats in water.

**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.

Lung Effects: Signs/symptoms may include difficulty breathing, cough, wheezing, weakness, increased heart rate, bluish colored skin (cyanosis), sputum production, and changes in lung function tests

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

**Carcinogenicity:** Since Extendspheres™ are blends manufactured from raw materials retrieved from the earth, such as (limestone, marble sand, etc.) and process heat is provided by burning fossil fuels, trace, but detectable, amounts of naturally occurring, and possibly harmful, elements may be found during chemical analysis. Under ASTM standards, Extendspheres™ contain 1.00% insoluble residue. A fraction of these residues may be free crystalline silica. Respirable crystalline silica



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Trade Name: **Extendspheres™ Ceramic Microspheres**

Date Prepared: **January 2008**

2 of 6

*(quartz) can cause silicosis, a fibrosis (scarring) of the lungs and possibly cancer. There is evidence that exposure to respirable silica or the disease silicosis is associated with an increased incidence of Scleroderma, tuberculosis and kidney disorders.*

**Carcinogenicity Listings:**

*NTP:*

*Known carcinogen*

*OSHA:*

*Not listed as a carcinogen*

*IARC Monographs:*

*Group 1 Carcinogen*

**4. FIRST AID MEASURES**

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

<b>Eye:</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.
<b>Skin:</b>	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops and persists. Wash clothing before reuse. Thoroughly clean shoes before reuse.
<b>Inhalation:</b>	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion:</b>	Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

**5. FIRE FIGHTING MEASURES**

<b>Flammable Properties:</b>	<i>Autoignition Temperature</i>	<i>Not applicable</i>
	<i>Flash Point</i>	<i>Not applicable</i>
	<i>Flammable Limits – LEL</i>	<i>Not applicable</i>
	<i>Flammable Limits – UEL</i>	<i>Not applicable</i>

**Extinguishing Media:** *Non-combustible. Choose material suitable for surrounding fire.*

**Protection of fire-fighters:** *Special Fire Fighting Procedures: Wear full protective clothing, including helmet, self, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.*

**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.



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Trade Name: **Extendspheres™ Ceramic Microspheres**

Date Prepared: January 2008

3 of 6

## **6. ACCIDENTAL RELEASE MEASURES**

<i>Personal protection:</i>	Wear safety goggles, body-covering clothing, chemical and abrasion-resistant gloves, and NIOSH-approved respiratory protection appropriate to the level of hazard where dust occurs.
<i>Environmental Hazards:</i>	Floats in water.
<i>Small spill cleanup:</i>	Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. Use appropriate Personal Protective Equipment (PPE). See section 8.
<i>Large spill cleanup:</i>	Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or 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. Comply with applicable environmental regulations.
<i>CERCLA RQ:</i>	There is no CERCLA Reportable Quantity for this material. If a spill goes off site, notification of state and local authorities is recommended.

## **7. HANDLING AND STORAGE**

<i>Handling:</i>	For industrial or professional use only. Avoid eye contact with dust or airborne particles. Avoid breathing of airborne material. Do not eat, drink, or smoke when using this product. Wash exposed areas thoroughly with soap and water. Use general dilution ventilation and / or local exhaust ventilation to control airborne exposures to below occupational Exposure Limits. If Ventilation is not adequate, use respiratory protection equipment.
<i>Storage:</i>	Store under normal warehouse conditions.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION (PPE)**

<i>Engineering controls:</i>	Provide local exhaust ventilation at transfer points. Use general dilution ventilations and/or local exhaust ventilation to control airborne exposure to below occupational exposure limits and/or control dust, fume, or airborne particles. If ventilation is not adequate, use respiratory protection equipment.
<i>Respiratory protection:</i>	Avoid breathing dust. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations. Half face piece or full face air-purifying respirator with N95 particulate filters.
<i>Skin protection:</i>	Avoid 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 protective clothing manufacturer for selection of appropriate compatible materials. Gloves made from the following materials are recommended: Neoprene, Nitrile Rubber
<i>Eye/Face protection:</i>	Avoid eye contact. Wear safety goggles.



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Trade Name: **Extendspheres™ Ceramic Microspheres**

Date Prepared: January 2008

4 of 6

**Prevention of  
Swallowing:**

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

**Exposure Guidelines:** Consult local authorities for acceptable exposure limits.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Low Density Fine Powder.
<b>Color:</b>	Gray to white color
<b>Odor:</b>	Odorless.
<b>pH:</b>	Not applicable.
<b>Bulk Density:</b>	0.35-0.45 g/cc.
<b>General Physical Form:</b>	Solid.
<b>Specific Gravity:</b>	0.60-0.95 [Ref Std: Water = 1]
<b>Melting Point:</b>	1,200°C
<b>Solubility in Water:</b>	Nil
<b>Evaporation Rate:</b>	Not Applicable
<b>Volatile Organic Compounds:</b>	Not Applicable
<b>Percent volatile:</b>	Not Applicable
<b>VOC Less H<sub>2</sub>O &amp; Exempt Solvents:</b>	Not Applicable
<b>Viscosity:</b>	Not Applicable

## **10. STABILITY AND REACTIVITY**

**Stability:** This material is stable under all conditions of use and storage.

**Materials and**

**Conditions to avoid:** None known

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Hazardous Decomposition**

**Or By-Products:** Substance – None Known Condition – Not Specified

## **11. TOXICOLOGICAL INFORMATION**

In product form, no toxicological hazards exist due to all crystalline material being incased in the glass-like shell. It is classified as a nuisance dust. If product is machined in any way, breathable particles of crystalline silica may be formed.

## **12. ECOLOGICAL INFORMATION**

**Eco toxicity:** There is no reported ecotoxicity data for this material.



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Trade Name: **Extendspheres™ Ceramic Microspheres**

Date Prepared: January 2008

5 of 6

Physical/Chemical: Not determined

### **13. DISPOSAL CONSIDERATIONS**

**Classification:** Disposed material is not a hazardous waste.

**Disposal Method:** Reclaim if feasible. Dispose in accordance with federal, state and local regulations and permits.

**EPA Hazardous Waste Number (RCRA)** Not Regulated

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

### **14. TRANSPORT INFORMATION**

**ID Number(s):** 70-0705-7208-9, 70-0705-7216-2, 70-0705-7217-0, 70-0705-7218-8,  
70-0707-4976-0

**US DOT Information:** Shipping name: None necessary  
Additional info: None.

**International**

**Transportation Regulations:** This product is not regulated as a hazardous material by the United States (DOT) or Canadian (TDG) transportation regulations.

### **15. REGULATORY INFORMATION**

#### **US FEDERAL REGULATIONS**

Contact Sphere One, Inc for more information

#### **311/312 Hazard Categories**

Fire Hazard – No      Reactivity Hazard – No

Pressure hazard – No      Immediate Hazard – No      Delayed Hazard – Yes

#### **STATE REGULATIONS**

Contact Sphere One, Inc for more information

#### **CHEMICAL INVENTORIES**

Extendspheres/Cenosphere material doesn't require hazard warning label under the United States EPA/European Waste Catalog. HS Commodity Code: 26219-00000 is suitable CAS No. 68131-74-8 Ashes Residue.

TSCA – Product is listed on Toxic Substance Control Act, Canada DSL and all other International Inventories.

#### **INTERNATIONAL REGULATIONS**

Contact Sphere One, Inc for more information

This MSDS has been prepared to meet the US OSHA Hazard Communication Standard,  
29 CFR 1910, 1200



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Trade Name: **Extendspheres™ Ceramic Microspheres**  
Date Prepared: **January 2008**

6 of 6

#### **16. OTHER INFORMATION**

##### **National Fire Protection Association (NFPA) Hazard Classifications**

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

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short term acute exposure to a material under conditions of fire, spill or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

##### **Hazardous Material Identification System (HMIS®) Hazard Classifications**

**Health: 1 Flammability: 0 Reactivity: 0 Protection: X-(See PPE section)**

Hazardous Material identification System (HMIS®) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for emergency situations. HMIS® is a registered mark of the National Paint and Coatings Association (NPCA).

**Reason for Reissue:** This MSDS was revised to meet the requirements of the 16 section ANSI/ISO format. The potential hazards of the product have not changed.

No revision information is available.

**THE INFORMATION ON THIS SAFETY DATA SHEET IS BELIEVED TO BE ACCURATE AND IT IS THE BEST INFORMATION AVAILABLE TO SPHERE ONE, INC. THIS DOCUMENT IS INTENDED ONLY AS A GUIDE TO THE APPROPRIATE PRECAUTIONS FOR HANDLING A CHEMICAL BY A PERSON TRAINED IN CHEMICAL HANDLING. SPHERE ONE, INC. MAKE NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED WITH RESPECT TO SUCH INFORMATION OR THE PRODUCT TO WHICH IT RELATES, AND WE ASSUME NO LIABILITY RESULTING FROM THE USE OR HANDLING OF THE PRODUCT TO WHICH THIS SAFETY DATA SHEET RELATES. USERS AND HANDLERS OF THIS PRODUCT SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION PROVIDED HEREIN FOR THEIR OWN PURPOSES.**