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## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

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**PRODUCT NAME:** PSMS (2.0 millimeter diameter)  
**SYNONYMS:** Polystyrene Spheres, Polymer Beads, Beads, Balls  
**MANUFACTURER:** Cospheric LLC, PO Box 6762, Santa Barbara, CA 93160  
info@cospheric.com  
**EMERGENCY PHONE:** (805) 687-3747 Hours of operation M-F 8am to 4pm PST

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### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

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INGREDIENT:	CAS NO.	% WT		
Polystyrene	9003-53-6	~100%		
<b>HMIS HAZARD CLASS:</b>	Health 0	Fire 1	Reactivity 0	PPE E

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### SECTION 3: HAZARDS IDENTIFICATION

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#### PHYSICAL STATE AND APPEARANCE:

Solid pellets.

#### POTENTIAL HEALTH EFFECTS:

Eye contact - Dust may cause mechanical irritation to eye.  
- HEATED POLYMER: Eye contact can cause serious thermal burns.  
- Vapors formed when polymer is heated may be irritating to the eye.  
Skin contact - No known acute effects of this product resulting from skin contact at room temperature.  
- HEATED POLYMER: Skin contact can cause serious thermal burns.  
Inhalation - Negligible at room temperature. Nuisance dusts can be irritating in upper respiratory tract  
- Irritating vapors may form when material is processed at high temperature.  
Ingestion - No effects are expected for ingestion of small amounts. May be a choking hazard.  
Slipping hazard can be present when spilled on floor.

#### PRIMARY ROUTES OF EXPOSURE:

FOR HOT MATERIAL: Skin contact, eye contact, inhalation.

#### POTENTIAL CHRONIC HEALTH EFFECTS:

CARCINOGENIC EFFECTS: Polystyrene is not a known carcinogen. Not listed as a carcinogen by OSHA, NTP or IARC

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**SECTION 4: FIRST AID MEASURES**

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**EYES:** Flush irritated eye with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Seek medical care.

**SKIN:** Flush skin with plenty of soap and water for at least 15 minutes, while removing contaminated clothing and shoes. Seek medical care.

**INHALATION:** Remove victim to well-ventilated area. If condition does not improve, seek medical care.

**INGESTION:** No first aid procedures necessary.

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**SECTION 5: FIRE-FIGHTING MEASURES**

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**FLAMMABILITY:** May be combustible at high temperature.

**AUTO-IGNITION TEMPERATURE:** 440°C (824°F)

**FLASH POINTS:** >200°C (>392°F)

**PRODUCTS OF COMBUSTION:** Carbon oxides (CO, CO<sub>2</sub>) and soot.

**CONDITIONS TO AVOID:** Prevent the accumulation of air borne dust/dust cloud, open flames, sparks, static, heat.

**EXTINGUISHING MEDIA:** Small Fire: Dry chemical extinguisher (ABC or AB). Use water spray or fog.  
Large Fire: Use water spray or fog. Do not use water jet.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear MSHA/NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear. May reignite itself after fire is extinguished.

**FIRE HAZARD REMARKS:** Fire may produce irritating gasses and dense smoke. Flowing material may produce static discharge, igniting dust accumulations. Processing or material handling equipment may generate dust of sufficiently small particle size, that when suspended in air may be explosive.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**PERSONAL PRECAUTIONS:** Put on appropriate NIOHS/MSHA approved respirator. Wear chemical gloves, goggles, and lab coat.

**SPILL RESPONSE:**

SMALL SPILL: Pellets on floor could present a serious slipping problem. Sweep, shovel or vacuum material into clean containers.

LARGE SPILL: Use a shovel to put the material into a waste disposal container. Prevent potentially contaminated water from entering waterways, sewers or drains.

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**SECTION 7: HANDLING AND STORAGE**

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**HANDLING:** Avoid temperatures of 316°C (600°F) or above. Handling of plastic may form nuisance dust. Pneumatic material handling and processing equipment may produce dust of sufficiently small particle size that may cause an explosive dust cloud. When handled in bulk quantities, the material may cause a crushing hazard due to the large masses involved; severe injury or death may result.

**STORAGE:** Store containers closed in ambient and dry location.

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**EXPOSURE LEVELS:**

Component:	OSHA PEL	ACGIH TLV	Unit
Nuisance dust (>5 micron)	15	10	mg/m <sup>3</sup>

**ENGINEERING CONTROLS:**

Ventilation: Provide adequate general mechanical exhaust.

**PERSONAL PROTECTION:**

Eye Protection: Safety glasses with side shields or goggles.

Skin Protection: Rubber gloves, wash at meals and end of shifts.

Respiratory Protection: Use NIOSH/MSHA approved respirator as needed to control exposure.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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**APPEARANCE:** White beads. Odorless, colorless.

**PHYSICAL STATE:** Solid pellets.

**MELTING POINT:** >132.22°C (270°F)

**SPECIFIC GRAVITY:** 1.04

**SOLUBILITY IN WATER:** Insoluble

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**SECTION 10: STABILITY AND REACTIVITY**

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**STABILITY:** Stable

**CONDITIONS TO AVOID:** Open flames and sparks, extreme heat. (316°C (600°F))

**SUBSTANCE INCOMPATIBILITY:** Reacts with strong oxidizing agents.

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**SECTION 11: TOXICOLOGICAL INFORMATION**

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**CHRONIC TOXICITY DATA:**

Polystyrene in its solid form is not expected to have any significant toxicological effect, except intestinal blockage if swallowed.

**POSSIBLE ROUTES OF EXPOSURE:**

Inhalation is not likely for materials > 5micron in diameter.

Ingestion is not likely, but possible if good hygiene practices are not followed.

Eye irritation

Skin contact may result in contact dermatitis

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**SECTION 12: ECOLOGICAL INFORMATION**

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**EXOTOXICITY:** Not available.

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**SECTION 13: DISPOSAL CONSIDERATIONS**

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**REMARKS:** Responsibility for proper waste disposal rests with the generator of the waste. Dispose of any waste material in accordance with all applicable federal, state and local regulations. Note that these regulations may also apply to empty containers, liners and rinsate. Processing, use, dilution or contamination of this product may cause its physical and chemical properties to change.

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**SECTION 14: TRANSPORT INFORMATION**

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Not regulated.

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**SECTION 15: REGULATORY INFORMATION**

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SARA (301,302,303): No chemicals listed as extremely hazardous substances in 40 CFR 355

SARA (304): No chemicals require reporting under 40 CFR 355

SARA (311, 312): Not a "Hazardous Chemical" under 29 CFR 1910.1200

SARA (313): No chemicals in excess of the minimum concentration subject to reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act, 1986 or 40 CFR Part 372

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**SECTION 16: OTHER INFORMATION**

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**DISCLAIMER:**

The statements made here are intended to describe the product with regard to necessary safety precautions. They do not guarantee special characteristics. This information is furnished without warranty, expressed or implied, except that it is accurate to the best of our current knowledge.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

This MSDS was prepared and is to be used for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

**PREPARATION INFORMATION:** Updated on 08/22/2012