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# Safety Data Sheet

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## Expanded Polystyrene

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### Section 1 - CHEMICAL PRODUCT/COMPANY IDENTIFICATION

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#### Material Identification

CAS Number: 9003-53-6  
CAS Name: Polystyrene  
Product Use: Foamed polystyrene. Packaging, thermal insulation.  
Synonyms: EPS, Expanded Polystyrene, R-pad, R-pac

#### Company Identification

##### MANUFACTURER

Styrene Products, Inc.  
5320 Fuller Street  
Schofield, WI 54476  
www.styreneproducts.com

##### PHONE NUMBER

(715) 359-6600

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### Section 2 - HAZARDS IDENTIFICATION

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Hazard Classification None.  
Label Elements None.  
Signal Word None.  
Hazard Statement(s) None.  
Other Hazards Low toxicity under normal conditions of handling and use.

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### Section 3 - COMPOSITION/INFORMATION ON INGREDIENTS

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#### Components

Material	CAS Number	Percent
Polystyrene	9003-53-6	95 – 100
Pentane* (n-pentane, isopentane, cyclopentane)	109-66-0 78-78-7/287-92-3	<2.0

Ingredients not precisely identified are proprietary or nonhazardous.

\*Flammable blowing agent that off-gases from product. Most of the pentane off-gases prior to shipment.

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## **Section 4 - FIRST AID MEASURES**

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### First Aid

Inhalation: Remove patient from exposure. Obtain medical attention if ill effects occur.

Skin Contact: Wash skin with soap and water.

Eye Contact: Remove particles by irrigating with eye wash solution or clean water, holding the eyelids apart. Obtain medical attention.

Ingestion: Ingestion of small quantities of this material under normal circumstances would not cause harmful effects.

Further Medical Treatment: Symptomatic treatment and supportive therapy as indicated.

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## **Section 5 - FIRE FIGHTING MEASURES**

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Flash point: 610 deg F (ASTM D 1929)  
Auto ignition temperature: 850 deg F

Extinguishing media: Water fog, foam, carbon dioxide, dry chemical.

Special fire fighting protective equipment: Self-contained breathing apparatus with full face piece and protective clothing.

Unusual fire and explosion hazards: Burning product may emit dense black smoke. Dust generated by fabrication, e.g. sanding, may present a fire hazard and should be handled accordingly.

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## **Section 6 - ACCIDENTAL RELEASE MEASURES**

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Steps to be taken in case material is released or spilled: Sweep up and recover or shovel into a chemical waste container.

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## **Section 7 - HANDLING AND STORAGE**

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### STORAGE

Keep containers in a clean, cool and dry area away from heat sources.  
Natural ventilation is adequate.  
Storage Temperature: Ambient.

### HANDLING

#### Process Hazards

All polymers degrade to some extent at their processing temperature, an effect which increases with increasing temperature. It is therefore impossible to be precise about which substances may be evolved.

However, it is only the minor components which vary substantially. The major components are given in the "STABILITY AND REACTIVITY" section.

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## **Section 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

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### Engineering Controls

#### Ventilation:

Use ventilation adequate to maintain safe levels if overheating or dust occurs during processing.

Respiratory protection: Use MSHA-NIOSH approved respirator for organic vapors, dusts and mists.

Protective clothing: Impervious gloves and apron.

Eye protection: Safety glasses with side shields.

Other protective equipment: Eyewash station in work area.

Special precautions or other comments: Follow procedures specified in the National Fire Protection Association Codes and Standards for handling combustible dusts. Maintain good housekeeping to avoid dust buildup

#### Exposure Guidelines

#### Exposure Limits

PEL(OSHA) : Particulates (Not Otherwise Classified) 15 mg/m<sup>3</sup>, 8 Hr. TWA, total dust 5 mg/m<sup>3</sup>, 8 Hr. TWA, respirable dust  
TLV ACGIH): None Established

#### Other Applicable Exposure Limits

##### STYRENE

PEL (OSHA): 100 ppm, 8 Hr. TWA 200 ppm, Ceiling 600 ppm - 5 Min. Max  
TLV(ACGIH): 50 ppm, 213 mg/m<sup>3</sup>, 8 Hr. TWA, Skin STEL 100 ppm, 426 mg/m<sup>3</sup>

##### PENTANE

PEL (OSHA): 1,000 ppm  
TLV (ACGIH): 600 ppm

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## **Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

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Appearance and color: White, rigid cellular foam blocks, boards and shapes.

Melting point: Softens at 175 to 220 deg. F.

Solubility in water: Insoluble

Odor: Very slight hydrocarbon.

Density: 0.6 to 3.0 pounds per cubic foot

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## **Section 10 - STABILITY AND REACTIVITY**

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Stability: Stable under normal conditions.

Decomposition occurs at temperatures above 500 deg F (260 deg C).  
Incompatibility: Oxidizing agents, organic solvents.

Hazardous decomposition products:  
Combustion products: Carbon dioxide, carbon monoxide, styrene and other organic vapors.

Hazardous polymerization: Will not occur.

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## Section 11 - TOXICOLOGICAL INFORMATION

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General: No toxicity information is available on this specific preparation; this health hazard assessment is based on information that is available on the properties of its components.

Ingestion: The acute oral LD50 in rats is probably above 15,000 mg/kg. Relative to other materials, this material is classified as "relatively harmless" by ingestion.

Eye contact: Irritation may develop following contact with human eyes. Dusts may cause mechanical irritation.

Skin contact: No irritation is likely to develop following contact with human skin.

Skin absorption: This product will probably not be absorbed through human skin.

Inhalation: No toxic effects are known to be associated with inhalation of dust from this material. Mechanical irritation may result from inhalation of dust from this material.

Other effects of overexposure: No other adverse clinical effects have been associated with exposures to this material.

### Carcinogenicity Information

The following degradation component is listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

Material	IARC	NTP	OSHA	ACGIH
STYRENE				X

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## Section 12 - ECOLOGICAL INFORMATION

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Solid with low volatility. The product is essentially insoluble in water. The product has low potential for bioaccumulation. The product is predicted to have low mobility in soil.

Persistence and Degradation: The product is non-biodegradable in soil. There is no evidence of degradation in soil and water.

Toxicity: The product is predicted to have low toxicity to aquatic organisms.

Effect on Effluent Treatment: The product is anticipated to be poorly removed in effluent treatment.

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## Section 13 - DISPOSAL CONSIDERATIONS

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Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Incinerate material in accordance with Federal, State/Provincial and Local requirements. Do not incinerate in closed containers.

Discarded product is not a RCRA hazardous waste.

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## **Section 14 - TRANSPORTATION INFORMATION**

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DOT: Not regulated

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## **Section 15 - REGULATORY INFORMATION**

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Not classified as hazardous to users or for transport.

U.S. Federal Regulations:

Polystyrene (9003-53-6) – Listed on the United States TSCA (Toxic Substances Control Act) inventory

Pentane (109-66-0) – Listed on the United States TSCA (Toxic Substances Control Act) inventory

U.S. State Regulations:

Pentane (109-66-0)

U.S. – Massachusetts – Right to Know List

U.S. – New Jersey – Right to Know Hazardous Substances List.

U.S. – Pennsylvania – RTK (Right to Know) List

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## **Section 16 - OTHER INFORMATION**

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HMIS Rating

Health : 0

Flammability : 2

Reactivity : 0

Personal Protection rating to be supplied by user depending on use conditions

Revision Date: 7/28/15

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