

Safety Data Sheet - January 2019

1 Name of Product and Company

Product

Expanded Polystyrene (EPS) rigid insulation board, including graphite EPS material of various densities.

Chemical Name

Polystyrene Foam, (C₈H₈)_n, with or without polyester or polypropylene film facers.

Manufacturer Information

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Recommended Use

Construction material, insulation, lightweight structural fill, geofoam, packaging, and other miscellaneous applications.

2 Hazards Identification

Hazard Classification None

Label Elements None

Signal Word None

Hazard Statement(s) None

Other Hazards Low toxicity under normal conditions of handling and use.
May form combustible dust concentrations in air if converted to small particles during handling or fabrication.

3 Composition/Information on Ingredients

Common Name	Chemical Name	CAS Number	Weight %
Polystyrene Foam	Polystyrene Polymer	9003-53-6	95-100%
Pentane*s (Isomers)	n-pentane	109-66-0	≤2%
	Isopentane	78-78-4	
	Cyclopentane	287-92-3	

*Expanded polystyrene foam contains a non-HBCD polymeric flame retardant for polystyrene foam.

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

4 First Aid Measures

Eye Contact

Dust or particles may cause mechanical eye irritation and/or injury. Flush eyes thoroughly with water for at least 15 minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Inhalation

Dust from mechanical fabrication may cause upper respiratory irritation. Fumes from hot wire cutting can also cause upper respiratory irritation. Move person to fresh air and keep comfortable for breathing. Loosen tight clothing such as collar, tie, belt or waistband to facilitate breathing. Obtain medical attention if symptoms persist.

Skin Contact

No significant signs or symptoms indicative of any adverse health hazard are expected to occur because of absorption. May cause slight skin irritation from abrasion in a few individuals. Wash with mild soap and running water. Remove and launder contaminated clothing before reuse. If irritation develops, seek medical attention.

Ingestion

Ingestion of this material is unlikely. It is biologically inert and ingestion of small quantities of this material under normal circumstances would not cause harmful effects. If it does occur, do not induce vomiting; seek medical attention.

5 Fire Fighting Measures

Flash Point 698°F (370°C)

Auto Ignition 850°F (454°C)

Extinguishing Media Water fog, foam, carbon dioxide, dry chemicals

Special Firefighting Protective Equipment Use approved self-contained breathing apparatus with full face mask and personal protective clothing (turnout gear).

Unusual Fire and Explosion Hazards Burning product may produce dense black smoke consisting of carbon (soot), carbon monoxide, carbon dioxide and water. Dust generated by fabrication, i.e., sanding, sawing, etc. will increase fire hazard and should be handled accordingly.

6 Accidental Release Measures

Land Spill Scoop up material and put into suitable container for recycling or disposal as a non-hazardous waste in an appropriate recycling or disposal facility.

Water Spill This material will float and disperse with wind and current. Contain the material with brooms, pick up or remove with a vacuum truck.

Air Release This material will settle out of the air. If concentrated on land, it can then be scooped up for recycling or disposal as a non-hazardous waste.

7 Handling and Storage

Storage Temperature Ambient (below 170°F)

General Storage

Store in well ventilated area. Assure storage areas and shipping containers are adequately ventilated. Avoid direct exposure to very high heat, open flame, sparks, or other sources of ignition. Do not enter confined areas unless adequately ventilated. The flammable vapors of pentane (blowing agent) are heavier than air and may accumulate in low places. "No Smoking – No Matches – No Lighters – No Welding" rules should be enforced.

8 Exposure Controls/Personal Protection**Exposure Guidelines****Expanded Polystyrene**

OSHA PEL Particulates (not otherwise classified) 15 mg/m³, 8 Hr. TWA, total dust 5 mg/m³, 8 Hr. TWA, respirable dust.

ACGIH TLV None Established

Pentanes

OSHA PEL 1,000 ppm

CGIH TLV 600 ppm

Styrene

OSHA PEL 100 ppm, 8 Hr. TWA 200 ppm, Ceiling 600 ppm – 5 min. Max.

CGIH TLV 50 ppm, 213 mg/m³, 8 Hr. TWA, Skin STEL 100 ppm, 426 mg/m³

Personal Protection

Eye/Face Protection If there is a potential for exposure to particles which could cause eye discomfort or for fabrication operations, safety glasses with side shields are recommended.

Skin Protection No precautions other than clean body-covering clothing should be needed.

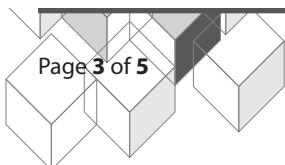
Hand Protection Use gloves to protect from mechanical injury. Selection of gloves will depend on the task.

Respiratory Protection Respiratory protection is not normally required. When respiratory protection is required for certain operations, including but not limited to saw, router or hot-wire cutting, use an approved air-purifying respirator. In dusty or misty atmospheres, use an approved particulate respirator.

Ingestion No precautions necessary due to the physical properties of the material.

Ventilation Use ventilation adequate to maintain safe levels if overheating or dust occurs during processing. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

Special Precautions or Other Comments Follow procedures specified in the NFPA Codes and Standards for handling combustible dust. Maintain good housekeeping to avoid dust buildup.



9 Physical and Chemical Properties

Appearance and Color	White or gray rigid cellular foam blocks, boards, sheets and shapes.
Melting Point	As a thermoplastic, polystyrene does not exhibit a true melting point. It will begin to soften at 175° to 212°F (79° to 100°C) and as more heat is applied, melting occurs.
Solubility in Water	Insoluble
Odor	Very slight hydrocarbon
Density	0.6 to 3.0lb/ft ³ (9.6 to 48 kg/m ³)

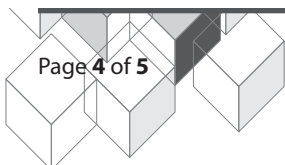
10 Stability and Reactivity

Stability	Stable under normal conditions. Decomposition occurs at temperatures above 500°F (260°C).
Reactivity	Reactive with oxidizing agents.
Incompatible Materials and Conditions to Avoid	Organic / aromatic solvents, esters, amine and aldehydes will dissolve product. High temperature, poor ventilation combined with freshly expanded product may create hazardous, explosive or fire conditions.
Hazardous Decompositions Products	May decompose in fire. See Section 5 of SDS for combustion products statement.
Hazardous Polymerization	Will not occur.

11 Toxicological Information

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated based on the individual ingredients, and those hazards must be assumed to be additive in the absence of complete information. The hazards described in this document have been evaluated on a threshold of 1.0% for all hazardous ingredients and 0.1% for all carcinogens.

Ingestion	The acute oral LD50 in rat 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. Fumes/vapor released during thermal operations such as hot-wire cutting may cause eye 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 exposure to this material.
Carcinogenicity	Styrene monomer ACGIH: A4 – Not classified as a Human Carcinogen IARC: 2B – Possibly Carcinogenic to Humans (Vol. 60, 1994)



12 Ecological Information

This material is not expected to cause harm to animals, plants or fish. The product is essentially insoluble in water, has low potential for bioaccumulation, and is predicted to have low toxicity to aquatic animals. The product is non-biodegradable in soil and water and is predicted to have low mobility in soil. Fish or animals may eat product and obstruct their digestive tract. It is not expected to harm ecosystems through its applied use.

13 Waste Disposal Considerations

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.

14 Transportation Information

For domestic transportation purposes, this product is not regulated as a hazardous material by Transport Canada or the US Department of Transportation (DOT) under Title 49 of the Code of Federal Regulations.

15 Regulatory Information

Toxic Substance Control Act (TSCA) All ingredients are listed on the TSCA inventory.

Section 313 Supplier Notification This product contains no known toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

OSHA Hazard Communication Standard This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910. 1200.

16 Other Information

HMIS Rating

Health	0
Flammability	2
Reactivity	0

State Right-To-Know Laws No substances on the provincial / state hazardous substances list are used in the manufacture of products on this Safety Data Sheet. While we do not specifically analyze these products, or the raw materials used in their manufacture, for substances on various provincial / state hazardous substances lists, to the best of our knowledge the products in this Safety Data Sheet contain no such substances.

International Regulations Countries other than the Canada and United States of America may have regulations governing the use of this product. The end-user should investigate local rules and regulations.

Disclaimer of Liability: The information in this SDS was obtained from sources which we believe are reliable. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS. 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 THE PRODUCT.