

Product Information Bulletin

Safety Data Sheet (SDS)

Plasti-Fab® EPS Products for Construction Applications

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This SDS addresses Plasti-Fab® expanded polystyrene (EPS) products made from expandable polystyrene resin containing a combustion modifier – i.e., fire retardant – per section 3.

Section 1: IDENTIFICATION

TRADE NAME: PlastiSpan® insulation, DuroFoam® insulation, DuroSpan® insulation, ENERGREEN® insulation, EnerSpan® insulation, FanFold Underlayment, GeoSpec® lightweight fill material, GeoSpan® compressible fill material, GeoVoid® compressible fill material, Advantage ICF System® insulation and Radon Guard™

OTHER MEANS OF IDENTIFICATION: EPS Foam

RECOMMENDED USE: Foam insulation and/or geotechnical fill

MANUFACTURER: Plasti-Fab Ltd.
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Section 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION: None

SYMBOL: None

SIGNAL WORD: Not hazardous

HAZARD STATEMENTS: None

PRECAUTIONARY STATEMENTS: P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261: Avoid breathing dust/fumes (from cutting).
P280, P284: Wear eye and respiratory protection (when sawing/sanding).

OTHER HAZARDS: Freshly expanded foam may off-gas residual blowing agent (pentane) which may accumulate in restricted or confined spaces in concentrations above the Lower Explosive Limit. Dust particles created by sanding or sawing may under certain conditions create an atmosphere with a dust explosion hazard.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical Name</u>
9003-53-6	98-99%	Polystyrene
109-66-0	<1.5%	n-Pentane
78-78-4	<0.5%	Isopentane
7782-42-5	0% or 1-5%	Graphite
1195978-93-8	0-1%	Brominated polymeric flame retardant

Note: n-Pentane and isopentane are residual blowing agents and not intended to be part of the product. Residual pentane rapidly decreases with age. Only EnerSpan insulation will contain graphite

Section 4: FIRST AID MEASURES

Eyes:	If dust or particles become lodged in eyes, rinse with clean water. Obtain medical attention if condition is painful.
Skin:	Contact is not expected to present a skin hazard. Wash exposed areas with mild soap and water. Consult physician if irritation persists.
Ingestion:	Product is not expected to present significant ingestion hazard. If it does occur, watch the person for several days to make sure obstruction does not occur. Do not induce vomiting unless directed to by physician.
Inhalation:	If excessive pentane vapours are inhaled, remove victim to fresh air. If symptoms persist provide oxygen and obtain medical attention.

Section 5: FIREFIGHTING MEASURES

Suitable extinguishing media:	<ul style="list-style-type: none"> • Water Fog • Foam • Dry Chemical • ABC type Extinguisher
Specific Protective Equipment and Precautions for Fire-fighters:	Fire fighters should wear self-contained breathing apparatus (SCBA) and personal protective clothing (turn out gear) in a sustained fire.
Specific Hazards Arising from the Material:	Burning may produce dense black smoke. Smoke consists of carbon monoxide, carbon dioxide, hydrogen halide, nuisance particulate, and carbon (soot). Styrene, pentane and other undetermined hydrocarbon fractions could be released in trace quantities. Dust generated by fabrication (i.e., sanding, sawing, etc.) will increase fire hazard and should be handled accordingly.
Hazardous Combustion Products:	CO, HBr, CO ₂
Special Fire Hazards:	Pentane vapours may be emitted from freshly produced foam. Vapours can be ignited by heat, sparks, flames or other sources of ignition.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Good housekeeping practices should be observed. Material can be swept or picked up and placed in a suitable container for disposal.

Environmental Precautions: Small pieces, particles and dust can be blown by the wind and enter storm water systems and waterways. Although the product is not hazardous excess product can result in impairment of storm water systems and waterways. Prevent loss of material to the local environment through good housekeeping practices.

Methods and Materials for Containment and Cleaning Up: Good housekeeping practices should be observed. Material can be swept or picked up and placed in a suitable container for disposal.

Section 7: HANDLING AND STORAGE

Precautions for safe handling:
Avoid all sources of ignition, do not smoke in areas where product is being stored or used. Product will dissolve in hydrocarbons, esters, aldehydes and amines. Avoid contact with these materials.

Building insulation precautionary labeling:
CAUTION: THIS PRODUCT IS COMBUSTIBLE. A PROTECTIVE BARRIER OR THERMAL BARRIER IS REQUIRED AS SPECIFIED IN THE APPROPRIATE BUILDING CODE.

Conditions for safe storage:
Store product away from open flame and other ignition sources. Store material in a dry place out of direct sunlight when possible.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Chemical Name	ACGIH TLV	
	TWA	STEL
n-Pentane	600 ppm	750 ppm
Isopentane	600 ppm	750 ppm
Polystyrene	Not applicable	Not applicable

Appropriate Engineering Controls: Provide sufficient general and/or local exhaust ventilation to maintain exposure below permissible personal exposure limit (PEL) or threshold limit value (TLV) for combustion products from heated cutting tools. Use local exhaust, where possible, in confined or enclosed spaces. Wear approved safety glasses/goggles and dust mask if mechanical fabrication is to take place.

Individual Protection Measures

Respiratory Protection: Use approved dust mask when sawing or sanding. Use approved NIOSH respirator when the PEL or TLV for combustion products from heated cutting tools, sawing or sanding may be exceeded.

Skin Protection: Skin protection not normally required. Wear gloves and/or sleeves, if sensitivity noted.

Eye Protection: Use approved safety glasses/goggles when sawing or sanding.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Rigid cellular foam blocks, boards and shapes
Odour:	Very slight hydrocarbon odour
Odour threshold:	N/A
pH:	N/A
Melting point:	Softening begins between 70 to 80 °C (160 to 176 °F)
Boiling point:	N/A (decomposes)
Flash point:	> 345°C / 653 °F (ASTM D1929)
Evaporation rate:	N/A
Flammability:	Oxygen Index >24% (ASTM D2863)
Upper/Lower Flammability or Explosive Limit:	Upper Explosive Limit: 8.3 (% by Volume) (pentane) Lower Explosive Limit: 1.4 (% by Volume) (pentane)
Vapour pressure:	N/A
Vapour density: (air = 1)	N/A
Relative density: (water = 1)	0.01 to 0.05
Solubility:	Insoluble in water. Soluble in hydrocarbons, esters, aldehydes and amines.
Partition coefficient, n-Octanol/Water (log K_{ow})	N/A
Auto-ignition temperature:	440 °C / 824 °F
Decomposition temperature:	> 300 °C / 572 °F
Viscosity:	N/A
Other information:	N/A
Physical state:	Solid

Section 10: STABILITY AND REACTIVITY

Reactivity:	Not reactive
Chemical Stability:	Normally stable
Possibility of Hazardous Reactions:	None expected
Conditions to Avoid:	Open flames, sparks, heat and other ignition sources.
Incompatible Materials:	Product will dissolve in hydrocarbons, esters, aldehydes and amines.
Hazardous Decomposition Products:	Combustion products include carbon monoxide, carbon dioxide, styrene, hydrogen halide, nuisance particulates, carbon (soot) and pentane. Other undetermined hydrocarbon fractions could be released in trace quantities.

Section 11: TOXICOLOGICAL INFORMATION

Route of Entry:	Skin Contact, Eye Contact, Inhalation, Ingestion
Effects of Exposure:	Skin: Frequent and prolonged contact may cause mild skin irritation. Eyes: Mild irritation of eyes and mucous membranes. Inhalation: Exposure to high concentrations of vapour may include dizziness, nausea and headaches.
Toxicity, LD50, LC50:	No information available.

Section 12: ECOLOGICAL INFORMATION

This section is not required by WHMIS.

Section 13: DISPOSAL CONSIDERATIONS

General Product Information: Material, if discarded, is not expected to be a characteristic hazardous waste.
Disposal Instructions: Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Section 14: TRANSPORT INFORMATION

Not regulated under Canadian TDG Regulations. Not regulated under US DOT Regulations.

Section 15: REGULATORY INFORMATION

All ingredients and components for this product are on the Domestic Substances List (DSL).

The product is classified as WHMIS as non-hazardous.

This product has been classified according to the GHS hazard criteria and the SDS contains all of the information required by the GHS.

Section 16: OTHER INFORMATION

SDS prepared by:	Plasti-Fab Ltd Technical Centre 802 McCool Street Crossfield, Alberta, Canada
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