

MATERIAL SAFETY DATA SHEET

EXPANDED POLYSTYRENE (EPS) PRODUCTS

Not hazardous to the criteria of Worksafe Australia

SA Wall Systems
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Product Description:

EPS comes in the form of polystyrene beads, blocks, sheets, wire cut shapes. Products contain a fire retardant additive.

Synonyms

Expanded Polystyrene (EPS); Expanded Polystyrene Foam; Polystyrene Insulation

ADG Code Classification

UN Number: None allocated
Proper Shipping Name: None allocated
Dangerous Goods Class: None allocated
Subsidiary Risk: None allocated
Packaging Group: None allocated
Hazchem Code: None allocated
Poisons Schedule No. : None allocated

Uses:

Thermal insulation, impact protection and void filler in building and construction and as a packaging material.

OZONE DEPLETING SUBSTANCES

EPS and Expanded Polystyrene Products are free of any Ozone Depleting Substances in both manufacture and composition.

PHYSICAL DESCRIPTION/PROPERTIES

Appearance: Light weight rigid cellular plastic in sheet, cut and moulded shapes, slab or block, white or coloured. May also be supplied as loose beads (i.e. bean bag beads) or granulated pieces.
Boiling Point: Not applicable
Melting Point: Not applicable
Vapour Pressure: Not applicable Specific Gravity: <1 (floats on water)
Flash Point: Not applicable
Flammability Limits: Not applicable
Solubility in Water: Insoluble
Form Supplied (20deg C): White or coloured solid
Maximum Service Temperature: 80 deg.C
Percent Volatiles: See "Ingredients" section

OTHER PROPERTIES

Solubility in Organic Solvents:

Polystyrene is soluble in hydrocarbons (eg. petrol and mineral turpentine) and esters and ketones (eg. acrylic lacquer thinners); insoluble in alcohol (eg. methylated spirits).

INGREDIENTS

Chemical Name	Proportion, % wt.
Polystyrene 9003-53-6	>92

Notes

- The major component is polystyrene.
- Product contains up to 1% wt. of a flame retardant additive (Hexabromocyclododecane CAS No. 3194-55-6) dispersed throughout the polymer matrix.
- When freshly made, or for a short period afterwards, EPS products may contain trace amounts (<2% wt.) of the highly volatile blowing agent pentane (CAS No. 109-66-0), which dissipates rapidly in air.

HEALTH HAZARD INFORMATION

HEALTH EFFECTS	FIRST AID
Acute-Swallowed: No significant effects	Swallowed: Not likely.
Acute-Eye: No significant effects expected. Dust from sanding or cutting may be a physical eye irritant. Hot wire cutting may generate fumes which are irritating to the eyes.	Eye: If dust in eyes, flush immediately with water for at least 15 minutes. Retract eyelids often. If discomfort persists seek medical advice.
Acute-Skin: No significant effects expected.	Skin: Not required.
Acute-Inhalation: Dust from sanding or cutting of mouldings may cause mild irritation to the upper respiratory tract. Hot wire cutting may generate fumes which are irritating to the nose.	Inhaled: If inhaled dust/vapour causes discomfort, remove to fresh air. If discomfort persists, seek medical advice.
Chronic: None known.	First Aid Facilities: No special facilities required.
	ADVICE TO DOCTOR Treat symptomatically

PRECAUTIONS FOR USE

EXPOSURE STANDARDS

Exposures to airborne dust and pentane are unlikely to exceed National Occupational Health and Safety Commission (Worksafe Australia) exposure standards when using this product.

ENGINEERING CONTROLS

Special ventilation is not normally required when handling the product.

PERSONAL PROTECTION

Special protection is not normally required. If further processing involves sanding or sawing, safety glasses with side-shields and a dust mask.

FLAMMABILITY

Expanded Polystyrene Products supplied by SAC&WS are combustible in the presence of a strong heat source or flame (see "Storage and Transport" section). Normal practices of fire safety and housekeeping should be observed, including: -

Prohibit open flames or potential flame sources in product storage areas.

Protect product from hot work, such as welding, by a suitable protective fire barrier. During such work have a suitable fire extinguisher handy.

Store product at job site in minimum quantity needed and protect from sources of flame or sparks, such as welders or grinders.

Dispose of waste product promptly as good housekeeping practice.

SAFE HANDLING INFORMATION

STORAGE AND TRANSPORT

Expanded Polystyrene Products are not classified as Dangerous Goods for transport, storage or handling.

Combustible solid. Store in open or well ventilated areas (see "Engineering Controls"). Store away from sources of strong heat or flame. Keep away from strong oxidising agents.

Smoking should be prohibited during unloading of the product and in storage areas as good safety practice.

SPILLS AND DISPOSAL

Non hazardous waste. Polystyrene is stable when buried in soil but is slowly degraded by sunlight. If feasible recycle. Can be used as a soil conditioner. Dispose of waste in an approved landfill.

FIRE/EXPLOSION HAZARDS

Combustible solid.

Extinguishing Media:

Water, foam, carbon dioxide and dry chemical.

Special Firefighting Procedures:

The product contains a combustible thermoplastic which will melt and drip when ignited and give off combustion products which are toxic (see "Hazardous Decomposition Products" section). Firefighters and others who may be exposed to products of combustion should wear self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

Hazardous Decomposition Products:

Carbon monoxide and carbon dioxide are the major products of incomplete combustion. The toxic potency of combustion products is similar to wood. (CSIRO Technical Report TR94/1).

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