



SAFETY DATA SHEET

Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Expanded Polystyrene – STYROBOARD EPS Fire Retarded Grades

Chemical Name: Polystyrene

Trade Names: FOAMEX STYROBOARD EPS, STYROPOD, EXPOL Underfloor Insulation, GEOFOAMX, STYROFOIL foil-faced EPS and other Expanded Polystyrene Products come in the form of polystyrene beads, blocks, sheets, moulded pods, other specially moulded shapes, wire cut shapes, foil-covered products and fine and coarse granulated material. Generally white but may be coloured.

- Not Dangerous Goods according to ADG Code for the Transport of Dangerous Goods
- Not a Workplace Hazardous Substance according to the criteria of Safe Work Australia.
- No need for classification according to GHS – Globally Harmonised System Classification and Labelling of Chemicals.

Use: Expanded Polystyrene articles for building and construction; insulation, cladding, mouldings and trims, void forms in concrete, light weight fill in civil works, Geof foam etc; in consumer goods as protective packaging to avoid breakage of electrical goods, toys, recreational equipment etc.;

Note: Fire Retarded EPS grades, are not approved for food contact to AS2070 – Plastic Materials for Food Contact Use.

MANUFACTURER / SUPPLIER CONTACT DETAILS

VICTORIA

FOAMEX GROUP PTY LTD - ABN 80 109 683 909
31-33 Gatwick Rd, Bayswater Nth 3153, Phone (03) 8739 5800
17/21 Freight Dr, Somerton 3062, Phone (03) 9219 6200
430 Barry Rd, Coolaroo 3048, Phone (03) 9302 1022

NEW SOUTH WALES

FOAMEX POLYSTYRENE PTY LTD - ABN 94 088 759 264
31 Mavis St, Revesby 2212, Phone (02) 9773 1615

SOUTH AUSTRALIA

FOAMEX POLYSTYRENE PTY LTD - ABN 94 088 759 264
15 Peachey Rd, Edinburgh North SA 5113, Phone (08) 8393 5900

Emergency Contacts: Tony Katsigiannis 0455 835 216

Section 2. HAZARD IDENTIFICATION

Emergency Overview: In normal use, does not present a Hazard.

Dangerous Goods: Not Dangerous Goods according to the ADG Code, IMDG Code and IATA

Hazardous Substance: Not a Workplace Hazardous Substance due to classifiable health effect hazards.

No specific dangers are known if stored and handled in accordance with notes in Section 7.

Other Hazards: When heated to decomposition or combustion, the product emits acrid smoke and irritating fumes. Keep away from heat, and ignition sources like sparks or flame. – No smoking. Take precautionary measures against static discharge.

Section 3. COMPOSITION, INFORMATION ON INGREDIENTS

Component	CAS No.	Proportion % w/w	GHS Hazards at 100%
Polystyrene	9003-53-6	>95%	None

May contain small percentages of dye and or polymeric Flame retardant

Section 4. FIRST AID MEASURES

No special precautions are necessary.

Inhalation: Inhalation of small particles or dust may occur. If inhaled remove to fresh air and seek medical attention.

Eyes: After contact with dust; rinse eyes with plenty of water. Seek medical attention if symptoms develop or persist.

Skin: No hazards anticipated. If irritation develops seek medical attention.

Ingestion: No hazards anticipated. Keep small particles away from small children to avoid choking.

Note to Doctor: Treat symptomatically for inhalation of decomposition fumes If overheating or combustion has occurred.

Section 5. FIRE AND EXPLOSION HAZARD INFORMATION

General: Expanded polystyrene foam is a combustible thermoplastic material that will melt and drip when ignited and will decompose with high heat to give off toxic combustion products similar to burning timber (according to CSIRO information). During combustion, Carbon Dioxide & Carbon Monoxide will be the primary decomposition products, Styrene and other Hydrocarbons may be produced. Heavy black smoke will result.

Extinguishing Media:

Water spray, Foam, Carbon Dioxide (CO₂), Dry chemical. Do not use direct water stream.

Special Firefighting procedures: Firefighters must be equipped with self-contained breathing apparatus.

Unusual Fire, Explosion and Decomposition Hazards: Risk of dust-air explosion where the product is cut or ground in fabrication or recycling activity.

Freshly Moulded Foam Pieces and beads:

Pentane dissolved in the raw material polymer is the blowing agent used to make the foam. Keep freshly moulded foam pieces, in well ventilated areas, away from heat, sparks or flame. These pieces or foam beads will exhibit a Pentane halo which is particularly evident immediately after moulding or cutting. The Pentane halo declines thereafter and is generally no longer evident after 7 days of storage at room temperature (20°C). The fire hazard diminishes markedly as the Pentane concentration in the moulded foam declines during normal post moulding operations, storage, shipment and application (up to 21 days).

Section 6. ACCIDENTAL RELEASE MEASURES

Observe storage and handling information in Section 7.

Personal precautions, protective equipment and emergency procedures:

No special precautions necessary.

Spillage:

Small spills should be swept up and disposed into suitable containers or plastic bags.

Large spills: Clean up with shovel and broom. Secure in bundles to avoid blowing around.

Special Procedures: None required.

Environmental precautions:

Discharge to the environment must be avoided.

Section 7. HANDLING AND STORAGE

Handling: No special measures are necessary provided the product is used correctly.

Storage: EPS is combustible. Store and use away from ignition sources, heat, sparks and open flames. Keep away from incompatibles such as oxidizing agents, and organic solvents. Have appropriate extinguishing media available – sprinkler systems, portable fire extinguishers.

Mechanical operations involving this material should be done in such a manner as to prevent or minimize dust generation. Small amounts of fines or dust may accumulate in material handling systems. If permitted to accumulate, these fines or dust can, under certain conditions, pose an explosion hazard. Every effort should be made to prevent suspension, concentration or accumulation of fines or dusts in, or around, material handling systems. Good housekeeping must be maintained to avoid dust build from cutting or recycling operations on rafters, sills and similar areas which could lead to dust fires.

Take precautions to limit static electricity discharge if conveying beads or particles in air streams. Bond and ground all equipment and conveying ducts. Don't use a plastic duct to convey expanded beads. Earth continuity should be provided between all processing equipment and should be independently 'earthed' non-electrical. See AS/NZS 1020 - The Control of Undesirable Static Electricity.

May be stored indefinitely at room temperature.

Section 8. EXPOSURE CONTROL/PERSONAL PROTECTION

EXPOSURE CONTROLS

Personal protective equipment:

Respiratory protection: Breathing protection if dust is formed. Particle filter with low efficiency for particles. (P1 meeting AS/NZ 1715-1716)

Hand protection: Protective gloves against mechanical risks for prolonged direct contact.

Eye protection: No eye protection is required if used for the intended purpose and satisfying generally accepted industrial hygiene rules. Required when there is a risk of eye contact or when cutting, grinding etc.

Body protection: No body protection is required if used for the intended purpose and satisfying generally accepted industrial hygiene rules. Standard work clothes and shoes.

General safety and hygiene measures: No special measures are necessary if stored and handled correctly. When using do not eat or drink. When using do not smoke.

Section 9. EXPOSURE CONTROL/PERSONAL PROTECTION

Appearance: Low density Solid, pieces, boards shapes and loose beads (bean bag beads) and granulated particles.

Colour: Generally White but may be coloured

Odour: Slight hydrocarbon odour

Boiling Point: Not applicable (decomposes)

Softening Point: 50-75°C (Polystyrene); Expands at 90-100°C

Melting Point: Melts at 170-190°C (Polystyrene)

Decomposition Temp: >240°C Molecular Weight: >40,000

Molecular Formula: Polystyrene (C₆H₆CH₂CH₂)_n

Vapour Pressure: Not applicable

Volatile Content: < 1% Specific Gravity: 0.01-0.045 (expanded product – floats on water)

Bulk Density: 10 - 45kg/m³ pH: Not applicable (insoluble in water)

Flammability: Polystyrene is a combustible material, it will melt and burn in a fire.

Autoignition Temperature: 427°C Solubility:

Insoluble in water; Not dispersible in cold or hot water. Polystyrene is soluble in Aromatic Hydrocarbons, ketones, organic solvents like Petrol.

Section 10. STABILITY AND REACTIVITY

Stability: Stable, under normal conditions of storage and use.

Conditions to Avoid: Heat, ignition sources, and incompatible materials

Incompatible Materials: Strong oxidizing materials; organic solvents it dissolves in.

Hazardous Decomposition Products: In a fire situation, Carbon Monoxide, Carbon Dioxide, Styrene Monomer.

Hazardous Reactions: Dust explosions may occur from accumulation of fine dry dust from cutting Expanded Polystyrene.

Hazardous Polymerization: Will not occur.

Section 11. TOXICOLOGICAL INFORMATION

Acute Toxicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Ingestion: Small numbers of granules are not expected to be harmful if swallowed. Excessive quantities are highly unlikely to be swallowed. Keep particles away from small children to avoid choking hazard.

Inhalation: Dust formed from cutting or recycling operations of the expanded product may cause irritation to the upper respiratory tract. There is no evidence of skin sensitising potential. Fumes evolved from overheated material or hot wire cutting may cause respiratory irritation.

Skin: Not a skin irritant. Not harmful.

Eye: Granules are not a health hazard to eyes, but may cause mechanical irritation. Dusts may cause mechanical irritation. Decomposition of fumes, from overheated melted material or hot wire cutting, may irritate the eyes.

Chronic Effects: No chronic effects for Polystyrene have been reported. Polystyrene (as 100%):
Acute Oral Toxicity LD50 : >5000 mg/kg Acute Skin Toxicity LD50 : >5000 mg/kg Chronic toxicity:
Chronic effects for Polystyrene have not been reported

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Acute Oral Toxicity LD50 : >5000 mg/kg
Acute Skin Toxicity LD50 : >5000 mg/kg
Chronic toxicity: Chronic effects for Polystyrene have not been reported

Section 12. ECOLOGICAL INFORMATION

Stability: Stable, under normal conditions of storage and use.

Conditions to Avoid: Heat, ignition sources, and incompatible materials

Incompatible Materials: Strong oxidizing materials; organic solvents it dissolves in.

Hazardous Decomposition Products: In a fire situation, Carbon Monoxide, Carbon Dioxide, Styrene Monomer.

Hazardous Reactions: Dust explosions may occur from accumulation of fine dry dust from cutting Expanded Polystyrene.

Hazardous Polymerization: Will not occur.

Section 13. DISPOSAL CONSIDERATION

100% Recyclable. Polystyrene must be clean

Recycle, incinerate, or landfill, as appropriate, in an approved facility.

Dispose of in accordance with Local, State & Federal EPA waste regulations. Foamex offers a pick-up waste service from building sites (fees apply), and a drop off service for the general public.

May be landfilled in Australia.

Section 14. TRANSPORT INFORMATION

Not Classified Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code); or by air according to the IACO (IATA Regulations), or by sea according to the IMO (IMDG Code).

Section 15. REGULATORY INFORMATION

GHS Hazardous Chemical Classification

GHS Signal Word: None

GHS Symbol: None

Hazard & Hazard Category: None

Prevention - P210 - Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P273 - Avoid release to the environment.

Not a Scheduled Poison. Hazardous Substance.

Not a Workplace Hazardous Substance due to classifiable health effect hazards.

Section 16. OTHER INFORMATION

SDS Dates and Revisions

SDS Latest Revision Date: 21/3/19

Sections Changed in Latest Revision: General review of all Sections to align with GHS.

Contact Points phone: Mobile: 0455 835 216

Email: tonyk@foamex.com.au

SDS APPROVED: Foamex Group Pty Ltd

Acronyms Used

ADG Code - Australian Code for the Transport of Dangerous Goods by Road & Rail Safe Work - Australia Replaced the ASCC & NOHSC. Administers their documents GHS - Globally Harmonized System for Classification and Labelling of Chemicals

CAS No - Chemical Abstracts Service Registry Number

UN No - United Nations Dangerous Goods Number.

SDS Code Used

This SDS has been prepared according to the Safe Work Australia Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals.

This SDS summarises to the best of our knowledge the health and safety hazard information on the product and how to safely handle and use the product in the workplace and should not be construed as guaranteeing specific technical properties. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace, including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Since methods and conditions of use are beyond our control, in inappropriate contexts we do not accept liability for any damages resulting from the use of, or reliance on, this information.