

Material Safety Data Sheet

Alumasc Extruded Polystyrene

Sheet No: M100FR Issued: 23/05/12

Revision: 1 1st Issue: 16/06/05

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1. Identification of the substrate/preparation and of the company/undertaking

1.1 Identification/Trade name: Alumasc Extruded Polystyrene

1.2 Use of the substance/preparation:
Thermal insulation

1.3 Manufacturer/Supplier:

Alumasc Exterior Building Products Ltd
White House Works, Bold Road, Sutton, St Helens, Merseyside, WA9 4JG. United Kingdom
Tel: +44 (0)1744 648400 Fax: +44 (0)1744 648401 E-mail: waterproofing@alumasc-exteriors.co.uk

1.4 Telephone number in case of emergency:
01744 648400 (Mon-Thur - 08.30-17.00 Fri - 08.30-16.00)

2. Hazards identification

2.1 Dangers to Human Health
This product is not classified as dangerous according to EC criteria

3. Composition and information about the components

3.1 Component:
Extruded polystyrene foam containing a halogenated flame retardant system

4. First-aid measures

- 4.1 Eye Contact:
Flush eyes with plenty of water, remove contact lenses after the first 1 - 2 minutes then continue flushing for several minutes. Only mechanical effects expected. If effects occur, consult a physician, preferably an ophthalmologist.
- 4.2 Skin Contact:
Wash skin with plenty of water.
- 4.3 Inhalation:
Move person to fresh air. If effects persist, consult a physician.
- 4.4 Ingestion:
If swallowed, seek medical attention. May cause gastrointestinal blockage. Do not give laxatives. Do not induce vomiting unless directed to do so by medical personnel.

Note to Physician:

No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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5. Fire-fighting measures

- 5.1 Extinguishing Media:**
Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam.
- 5.2 Fire Fighting Procedures:**
Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. If material is molten, do not apply direct water stream. Use fine water spray or foam. Cool surroundings with water to localise fire zone.
- 5.3 Special Protective Equipment for Fire-fighters:**
Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.
- 5.4 Unusual Fire and Explosion Hazards:**
Mechanical cutting, grinding or sawing can cause formation of dusts. To reduce the potential for dust explosion, do not permit dust to accumulate. This product contains a flame retardant to inhibit accidental ignition from small fire sources. This plastic foam product is combustible and should be protected from flames and other high heat sources. Dense smoke is produced when product burns.
- 5.5. Hazardous Combustion Products:**
During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. In smouldering or flaming condition, carbon monoxide, carbon dioxide and carbon are generated. Combustion products may include and are not limited to: Hydrogen bromide. Studies have shown that the products of combustion of this foam are not more acutely toxic than the products of combustion of common building materials such as wood.

6. Accidental release measures

- 6.1 Steps to be taken if material is released or spilled:**
Recover spilled material if possible. See Section 13, Disposal Considerations, for additional information.
- 6.2 Personal precautions:**
There are no special required instructions.
- 6.3 Environmental precautions:**
There are no special required instructions.

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7. Handling and storage

7.1 Handling:

General Handling: Fabrication methods which involve cutting into this product may release the blowing agent(s) remaining in the cells. Provide adequate ventilation to assure localized concentrations in release areas are maintained below the lower flammable limit. Mechanical cutting, grinding or sawing can cause formation of dusts. To reduce the potential for dust explosion, do not permit dust to accumulate. This product is combustible and may constitute a fire hazard if improperly used or installed. When installed, this product should be adequately protected as directed by national building regulations or instructions in the specific application brochure.

7.2 Storage:

During shipment, storage, installation and use, this material should not be exposed to flame or other ignition sources. This material contains a halogenated flame retardant additive system to inhibit accidental ignition from small fire sources.

8. Exposure controls/personal protection

8.1 Exposure Limits:

Concentrations of the blowing agents anticipated incidental to proper handling are expected to be well below those which cause acute inhalation effects and below exposure guidelines.

8.2 Personal Protective Equipment:

Eye protection should not be necessary. For fabrication operations safety glasses are recommended. Safety glasses should be consistent with Directive 89/686/EC Category 2. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. Chemical goggles should be consistent with EN166 or equivalent.

8.3 Skin Protection:

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

8.4 Hand protection:

Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practise for any material, skin contact should be minimised. Use gloves to protect from mechanical injury. Selection of gloves will depend on the task.

8.5 Respiratory protection:

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. Use the following CE approved air-purifying respirator: Organic vapour cartridge with a particulate pre-filter, type AP2.

8.6 Ingestion:

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

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8.7 Engineering Controls:

Ventilation - Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

9. Physical and chemical properties

9.1 General information

Supplied in board form with no significant odour. Usually pale orange in colour but occasionally supplied in other colours.

9.2 Important health, safety and environmental information

Physical State	:	Board
Colour	:	Pale orange
Odour	:	Odorless
Flash Point - Closed Cup	:	346° C
Flammable Limits in Air	:	Lower: Not applicable Upper : Not applicable
Autoignition Temperature	:	491° C
Vapour Pressure	:	Not applicable
Boiling Point (760mmHG)	:	Not applicable
Vapour Density(air=1)	:	Not applicable
Specific Gravity (H2O =1)	:	Not applicable
Solid Density	:	Approx 35kg/m ³
Freezing Point	:	Not applicable
Melting Point	:	75° C
Solubility in Water (by weight)	:	Insoluble
pH	:	Not applicable
Kinematic Viscosity	:	Not applicable

10. Stability and reactivity

10.1 Stability/Instability:

Thermally stable at typical use temperatures.

10.2 Conditions to Avoid:

Avoid temperatures above 300°C (572°F) Exposure to elevated temperatures can cause product to decompose. Avoid direct sunlight.

10.3 Incompatible Materials:

Avoid contact with: Oxidizers, aldehydes, amines, esters, liquid fuels, organic solvents

10.4 Hazardous Polymerization:

Will not occur.

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10.5 Thermal Decomposition:

Does not normally decompose. Evolution of small amounts of hydrogen halides occur when heated over 250°C (482°F). Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aromatic compounds, aldehydes, ethylbenzene, hydrogen bromide, polymer fragments. Under high heat, non-flaming conditions, small amounts of aromatic hydrocarbons such as styrene and ethylbenzene are generated.

11. Toxicological information

11.1 Skin Contact:

Mechanical injury only. Essentially non-irritating to skin

11.2 Eye Contact:

Solid or dust may cause irritation or corneal injury due to mechanical action. Fumes/vapour released during thermal operations such as hot-wire cutting may cause eye irritation.

11.3 Ingestion:

May cause choking or blockage of the digestive tract if swallowed.

11.4 Inhalation:

Dust may cause irritation to upper respiratory tract (nose and throat). Fumes/vapours released during thermal operations such as hot wire cutting may cause respiratory irritation.

11.5 Systemic Effects:

Contains components which, in humans, have been shown to cause central nervous system and liver effects. The component is ethanol.

11.6 Repeated Dose Toxicity:

Additives are encapsulated in the product and are not expected to be released under normal processing conditions or foreseeable emergency.

12. Ecological information

12.1 Movement & Partitioning:

No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000). In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material is expected to float. There is no evidence of any significant leaching, therefore it is unlikely to contaminate ground water.

12.2 Persistence and Degradability:

Surface photo-degradation is expected with exposure to sunlight. No appreciable biodegradation is expected.

12.3 Ecotoxicity:

Not expected to be acutely toxic to aquatic organisms.

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13. Disposal considerations

All efforts to recycle material should be made. However, this material contains a halogenated flame retardant and should not be recycled with other non-flame retarded plastics. This material may be disposed of preferably by incineration under approved conditions or, in some countries, in approved landfills. Customers are advised to check their local legislation governing the disposal of waste materials. If incinerated, it is recommended that the flue gases be treated by a scrubber before exhausting to the atmosphere.

14. Transport information

- 14.1 Road and Rail:
Not regulated
- 14.2 Ocean:
Not regulated
- 14.3 Air:
Not regulated:
- 14.4 Inland Waterways
Not regulated

15. Regulatory information

- 15.1 European Inventory of Existing Commercial Chemical Substances (EINECS)
The components of this product are on the EINECS inventory or are exempt from inventory requirements
- 15.2 EC Classification and User Label Information
This product is not classified as dangerous according to EC criteria.

16. Other information

- 16.1 n/a

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16.2 Legend:

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
WEEL	Workplace Environmental Exposure Level
HAZ DES	Hazard Designation
EU ELV	EU Exposure Limit Values Data