

MSDS

Safety Data Sheet

According to EC N. 435/2010

Version number 2

Printing Date: 03.12.2008

Revision: 20.11.2010

1 Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name: ProTherm SDxx Styrofoam LB A XPS foam core**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
Identified uses
 Thermal insulation.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Radmat Building Products Ltd
 Esha House
 St Mary's Business Park
 Albany Road
 Market Harborough
 Leicestershire
 LE16 7EB,
 United Kingdom
 Tel: +44 (0) 1858410372
 Fax: +44 (0) 1858410572
 e-mail: techenquiries@radmat.com
- Further information obtainable from: www.radmat.com
- Emergency telephone number: During office hours tel.: +44 (0) 1858410372 at all other times please contact your national poisoning centre.

* 2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 This product is not classified as dangerous according to EC criteria.

3 Composition/information on ingredients

- **3.2 Mixtures**
- This product is a mixture.

CAS-No./EC-No./Index	REACH No.	Amount	Component	Classification: REGULATION (EC) No 1272/2008
CAS-No. 3194-55-6 EC-No. 221-695-9	-	>= 0.1 %	1,2,5,6,9,10- Hexabromocyclo dodecane (HBCD)	Aquatic Chronic, 1, H410

See Section 16 for full text of R-phrases.

Extruded polystyrene foam containing a halogenated flame retardant system.

4 First aid measures

- **4.1 Description of first aid measures**
- **Eye Contact:** If irritation occurs, Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.
- **Skin Contact:** Wash skin with plenty of water.
- **Inhalation:** Move person to fresh air; if effects occur, consult a physician.
- **Ingestion:** No emergency medical treatment necessary.
- **Notes 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 Firefighting measures

- **5.1 Extinguishing media**
 - Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam.
- **5.2 Special hazards arising from the substance or mixture**
 - **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 smoldering or flaming conditions, carbon monoxide, carbon dioxide and carbon are generated. Combustion products may include and are not limited to: Hydrogen bromide. Based on combustion toxicity testing, the effects of combustion from this foam are not more acutely toxic than the effects of combustion from common building materials such as wood.
 - **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. For more information, contact Dow. Dense smoke is produced when product burns.
- **5.3 Advice for firefighters**
 - **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 localize fire zone.
 - **Special Protective Equipment for Firefighters:** 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.

6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures:** There are no special required instructions.
- **6.2 Environmental precautions:** There are no special required instructions.
- **6.3 Methods and material for containment and cleaning up:** Recover spilled material if possible. See Section 13, Disposal Considerations, for additional information.

7 Handling and storage

- **7.1 Precautions for safe 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 localised 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 Conditions for safe storage, including any incompatibilities**
 - 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.
- **7.3 Specific end use(s)**
 - See the technical data sheet on this product for further information.

8 Exposure controls/personal protection

- **8.1 Control parameters**
- **Exposure Limits**
 - None established.
 - 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.

(Contd. on page 3)

MSDS

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(Contd. of page 2)

· **8.2 Exposure controls**

· **Personal protective equipment:**

Eye/Face Protection: Eye protection should not be necessary. For fabrication operations safety glasses (with side shields) are recommended. Safety glasses (with side shields) should be consistent with EN 166 or equivalent. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent.

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 should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In dusty or misty atmospheres, use an approved particulate respirator. 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 vapor cartridge with a particulate pre-filter, type AP2.

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

Engineering Controls

Ventilation: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

* **9 Physical and chemical properties**

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Physical State:	Board
Colour:	Blue
Odour:	Odorless
pH	Not applicable
Melting Point	> 75°C <i>see literature</i>
Freezing Point	Not applicable
Boiling Point (760 mmHg)	Not applicable.
Flash Point - Closed Cup	346 °C <i>see literature</i>
Flammable Limits In Air	
Lower:	Not applicable
Upper:	Not applicable
Vapour Density (air = 1)	Not applicable
Specific Gravity (H2O = 1)	Not applicable
Solubility in water (by weight)	insoluble in water
Partition coefficient, n- octanol/water (log Pow)	No data available for this product.
Autoignition Temperature	491 °C <i>see literature</i>
Decomposition Temperature	No test data available
Kinematic Viscosity	Not applicable

10 Stability and reactivity

· **10.1 Chemical stability**

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.

(continued on 4)

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(continued of 3)

- **10.3 Hazardous Polymerisation**
Will not occur
- **10.4 Incompatible materials:** Avoid contact with: Oxidizers. Aldehydes. Amines. Esters. Liquid fuels. Organic solvents.
- **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 Information on toxicological effects**
- **Acute Toxicity**
- **Ingestion**
Swallowing is unlikely because of the physical state. Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. May cause choking or blockage of the digestive tract if swallowed.
As product: Single dose oral LD50 has not been determined
- **Inhalation**
Dust may cause irritation to upper respiratory tract (nose and throat). Fumes/vapors released during thermal operations such as hot wire cutting may cause respiratory irritation. Based on the available data, narcotic effects were not observed.
As product: The LC50 has not been determined.
- **Eye Contact**
Solid or dust may cause irritation due to mechanical action. Fumes/vapor released during thermal operations such as hot-wire cutting may cause eye irritation.
- **Skin Contact**
Mechanical injury only. Essentially nonirritating to skin.
- **Skin Absorption**
Skin absorption is unlikely due to physical properties.
- **Repeated Dose Toxicity**
Contains component(s) which have been reported to cause effects on the following organs in humans: Central nervous system. Liver. The component(s) is/are: Ethanol. Testing has indicated that normal handling and cutting are unlikely to result in exposure levels sufficient to cause the listed effects.
- **Chronic Toxicity and Carcinogenicity**
No relevant data found.
- **Developmental Toxicity**
No relevant data found.
- **Reproductive toxicity**
No relevant data found.
- **Genetic Toxicity**
No relevant data found.)

12 Ecological information

- **ENVIRONMENTAL FATE**
- **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.
- **Persistence and Degradability**
Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected.

(continued on 5)

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(continued of 4)

· ECOTOXICITY

This product contains a substance which is classified as dangerous for the environment. However recent studies on aquatic organisms have shown that articles such as Extruded polystyrene (XPS) foams, while containing this substance, do not need to be classified for environmental danger.

13 Disposal considerations

· 13.1 Waste treatment methods

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

· ROAD & RAIL

NOT REGULATED

· OCEAN

NOT REGULATED

· AIR

NOT REGULATED

· INLAND WATERWAYS

NOT REGULATED

15 Regulatory information

· European Inventory of Existing Commercial Chemical Substances (EINECS)

The components of this product are on the EINECS inventory or are exempt from inventory requirements.

· EC Classification and User Label Information

This product is not classified as dangerous according to EC criteria.

· REACH Regulation (EC) No 1907/2006.

This product is an article according to Article 3(3) which does not intentionally release substances and therefore does not require registration according to Article 7. This product contains a substance listed in the Candidate list for Authorisation established in accordance with article 59(1): 1,2,5,6,9,10- Hexabromocyclododecane (HBCD).

16 Other information

· Risk-phrases in the Composition section

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Radmat Building Products Ltd urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.