HSE GUIDANCE DOCUMENT FIRE RETARDANT GRADE EPS FOAM

Expanded Polystyrene foam (EPS), Fire Retardant Grade

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The information in this document can be made available to all who handle the product.

1. Identification of the substance and of the company

1.1 Identification of the substance

Product Name: Regular Product ABC (block/moulded product / board)
Product Code: EUMEPS 01 FR (-SE)
Product Type: Thermoplastic

1.2 Use of the substance

The substance is used as an insulation / building material in construction works / road construction and as packaging material.

1.3 Manufacturer / Supplier Identification (should be the person that places it on the Market)

Manufacturer
Name: EPS Supplier
Address: EPS Road 123
EPS City
Phone number: ----------
E-mail address: ----------
Web Site: ----------

1.4 Emergency telephone

Manufacturer/Supplier: 000-000000000 (during office hours)

Official Advisory body: 000-000000000 (is not necessary)

2. Hazards identification

Human health hazards:	No specific hazards
Safety hazards:	Freshly moulded EPS releases residual pentane which may form explosive vapour-air mixtures in confined spaces, e.g. during transport and in storage.
Environmental hazards:	No specific hazards.

3. Composition/information on ingredients

Name:	Expanded Polystyrene
Synonyms:	EPS, poly (phenylethene)

CAS-number for polymer component (>=97 wt-%) =
9003-53-6 (polystyrene)

Dangerous components	***CAS number***	***Content range***	***EC no.***	***EC hazard***	***R-phrases***
Pentane	109-66-0 and	< 2 wt.-%		F	R11
Hexabromocyclododecane	*25637-99-4 or 3194-55-6*	*0,5 -1,0 % (w/w)*	*247-148-4 or 221-695-9*	N	50/53
Mixed isomers	78-78-4				

Other information:

4. First Aid Measures

Symptoms and effects:	None
First Aid – Inhalation:	No specific measures
First Aid – Skin:	No specific measures
First Aid – Eye:	No specific measures
First Aid – Ingestion:	No specific measures
Advice to First-Aiders:	Treat symptomatically

5. Fire-fighting Measures

Specific hazards:	Combustible, but will not sustain spread of fire after removal of ignition source. Combustion products include carbon monoxide, carbon dioxide. Smoke , which may reduce visibility, and traces of styrene may also be released.
Extinguishing media:	Foam, water spray or fog Dry chemical powder, carbon dioxide, sand or earth may be used for small fires
Unsuitable extinguishing media:	Water in a jet
Protective equipment:	Full protective clothing and self-contained breathing apparatus
Other information:	Keep adjacent products cool by spraying water.

6. Accidental release measures

Not applicable

7. Handling and Storage

7.1 Handling

Handling:	Keep away from ignition sources e.g. naked flames or sparks In case of hot work being necessary: keep fire extinguisher at hand No smoking Do not breathe fumes or vapours from heated product. Use local exhaust ventilation over hot-wire cutting area Avoid generation or accumulation of dusts All equipment to be earthed
Handling temperatures:	Ambient

7.2 Storage

Storage;	Keep away from sources of heat or ignition (see also section 10). Keep away from organic solvents
Storage temperature:	Less than 85°C
Product transfer:	See handling

7.3 Specific use(s)

Not applicable

8. Exposure controls /Personal protection

8.1 Exposure Limit Values

Exposure Limit Values:	Non established

8.2 Exposure controls

Occupational exposure controls :	None established
Respiratory protection:	No specific measures
Hand protection:	No specific measures
Eye protection:	No specific measures
Skin protection:	Standard issue work clothes Safety shoes or boots
Environmental exposure controls :	none established

9. Physical and Chemical Properties

9.1 General information

Physical state:	Rigid foam with a closed cellular structure
Form:	Block, Board or moulded product, consisting of small fused spherical foamed beads
Density:	circa 8 – 60 kg/m^3 at 20°C
Odour:	None

9.2 Important health, safety and environmental information

pH:	neutral
Boiling point:	none
Flash point:	370°C (based on no residual pentane)
Flammability:	Euroclass E
Explosion limit – upper:	7,8% (v/v) based on residual pentane)
Explosion limit – lower:	1, 3% (v/v) based on residual pentane)
Oxidising properties:	none
Vapour pressure:	not relevant
Relative density:	circa 8 – 60 kg/m m^3 at 20°C
Solubility:	Soluble in aromatics and halogenated solvents and ketones
Water solubility:	Insoluble
Partition coefficient n-octanol/water:	not relevant
Viscosity:	not relevant
Vapour density:	None
Evaporation rate:	None

9.3 Other information

Softening point:	85 – 100°C
Auto-ignition temperature:	450°C

10. Stability and Reactivity

The product is stable and not reactive in normal use, storage and handling conditions.

10.1 Conditions to avoid

Conditions to avoid:	Heat above 100º C, flames, sparks and direct contact with electrical cables

10.2 Materials to avoid

Materials to avoid:	Avoid contact with aromatics and halogenated solvents and ketones

11. Toxicological information

Basis for assessment:	Information given is based on a knowledge of the constituents and the toxicology of similar substances
Acute toxicity – oral:	None
Acute toxicity– dermal:	None
Acute toxicity– inhalation:	Thermal decomposition at high temperatures, e.g. hot wire cutting, may result in the release of styrene in which case the Occupational Exposure limit for styrene should be taken into account (e.g. hot wire cutting)
Eye irritation:	Not expected to be irritating
Skin irritation:	Not expected to be irritating
Skin sensitisation:	Not expected to be a skin sensitizer
Human effects:	None

12. Ecological information

Basis for assessment: Information given is based on a knowledge of the constituents and the ecotoxicology of similar substances

12.1 Ecotoxicity

Sewage treatment: Not dangerous

12.2 Mobility

Mobility: Floats on water.

12.3 Persistence and degradability

Persistence and degradability: Not inherently biodegradable

12.4 Bio accumulative potential

Bioaccumulation: Does not bioaccumulate

12.5 Results of PBT assessment

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

12.6 Other information

Small EPS particles may have physical effects on aquatic and terrestrial organisms
Typical EPS particles pass through the digestive systems of animals chemically unchanged.

13 Disposal considerations

Precautions:	None
Waste disposal:	Recover or recycle, if possible. Otherwise incineration in a state-of-the-art waste incinerator or licensed landfill.
Product disposal:	Recover or recycle, if possible. Otherwise incineration in an appropriate waste incinerator or licensed landfill.
Packaging disposal:	Remove all packaging for recovery or waste disposal.
Local legislation:	Not classified as chemical waste.

14 Transport Information

General information:	Not classified under international / national regulations for road / maritime / air transport and inland navigation.
Shipping name:	Not applicable
Local regulations:	
Other information:	Packages must be marked “Keep away from sources of ignition”. Hazard symbol not legally required for sea transport.

15 Regulatory information:

EC label name:	-
EC classification:	-
EC symbols:	-
EC risk phrases:	In use may form flammable/explosive vapour-air mixture, based on residual pentane.
EC-safety phrase:	-
EINICS (EC):	All components are listed or are polymer exempt.
REACH, (EC) No 1907/2006:	This product is an Article. This product contains Hexabromocyclododecane above 0.1% (w/w) listed in the Candidate list for Authorisation established in accordance with article 59.1.
MITI (Japan):	All components are listed.
TSCA (USA):	All components are listed.
AICS(Australia):	All components are listed.
DSL(Canada) :	All components are listed.
National legislation :	-

16 Other information

Uses and restrictions : The substance is used as a isolation/building material in construction works / road construction.

For further information, contact:
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