

EC SAFETY DATA SHEET

According to Regulation (EG) No. 1907/2006 (REACH) and Regulation (EU) No. 2020/878

Issued: 10.07.2021

Language: EN

Printed:



3D|CORE™ XPS

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

1.1 Product identifier

Trade name: 3D|CORE™ XPS

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture: Structural foam core for composite application

Uses advised against: No data available

1.3 Details of the supplier of the safety data sheet

Company name: 3D|Core GmbH & Co. KG
Address: Oststraße 74
32051 Herford
Website: www.3D-CORE.com
E-Mail: info@3D-CORE.com
Telephone: +49 (0) 5221 93639-0
Telefax: +49 (0) 5221 93639-1

1.4 Emergency telephone number: +49 (0) 5221 93639-0 (This number is only available during office hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification Information: This product does not meet the classification and labelling criteria given in Regulation (EC) No. 1272/2008 (CLP).

2.2 Label elements

Not relevant.

2.3 Other hazards

No specific dangers known, if the regulations/notes for storage and handling are considered according to Regulation (EC) No 1272/2008 (CLP).

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SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Chemical characterization: Extruded polystyrene foam containing a halogenated flame retardant system

Hazardous ingredients: Hexabromocyclododecane
Content: >0.1%
CAS Number: 3194-55-6
EC Number: 221-695-9
Hazard symbol: H400, H410

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: Avoid contact with the skin, eyes and clothing.
After inhalation: If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.
After skin contact: When in contact with the skin, clean with soap and water. Burns caused by molten material require hospital treatment.
After eye contact: Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). If irritation develops, seek medical attention.
After ingestion: Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. If difficulties occur: seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water; Carbon dioxide; Dry chemical fire extinguishers
Unsuitable extinguishing media: High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Dense smoke is produced when product burns. Under fire conditions polymers decompose. The smoke may contain polymer fragments of varying compositions in addition to unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Carbon monoxide and Carbon dioxide

5.3 Advice for firefighters

In case of combustion use a suitable breathing apparatus and protective firefighting clothing (includes firefighter's helmet, protective suit, safety footwear, protective gloves).

5.3 Additional information

XPS extruded foam sheets contain flame retardant which prevents spontaneous ignition when exposed to smaller ignition sources.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: There are no special required instructions.
For emergency personnel: There are no special required instructions.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater

6.3 Methods and material for containment and cleaning up

Take up mechanically. When picked up, treat material as prescribed under heading "Disposal considerations"

6.4 Reference to other sections

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

General protective and hygiene measures:

Store insulation materials in a dry place and protect from direct UV radiation and heat exposure.

Certain operations, such as grinding and cutting can lead to dust accumulation, which can cause dust explosions. Ensure adequate ventilation and suitable extraction equipment. When cutting automatically, use suitable abrasives. Extruded foam sheets are attacked by solvents. Therefore, both the adhesive and all other materials in direct contact with the extruded foam sheets, should be free of solvents. 3D|CORE™ XPS extruded foam boards should not be exposed to temperatures above 70 °C for extended periods.

Advice on protection against fire and explosion:

Be careful when handling open fire as the extruded foam sheets are flammable.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

3D|CORE™ XPS must be stored in a dry place and protected from high temperatures. Unpacked 3D|CORE™ XPS sheets must be protected from direct UV radiation. Do not store together with flammable materials.

7.3 Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

No parameters available for monitoring

8.2 Exposure controls

Appropriate engineering controls: No data available

Personal protective equipment

Respiratory protection: If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

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Eye/face protection:	Wear a disposable mask (Type according to EN 149 FFP1) in unventilated rooms or when dust is generated. Safety glasses (EN 166).
Hand protection:	In case of intensive contact, wear protective gloves (EN 388). Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves. Protect uncovered parts of skin. Wear loose-fitting, closed work clothing.
Body protection:	
Hygiene protection measures:	Rinse hands with cold water before washing.
Environmental exposure controls:	No data available

Good ventilation should be sufficient in most cases. Installed extraction devices on the technical equipment are necessary during machining operations, such as cutting and grinding, in order to control the exposure to dust and fumes.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour:	Solid Yellow
Odour:	Odourless
Odour threshold:	No data available
pH value:	No data available
Boiling point/boiling range:	No data available
Melting point/melting range:	Value: 100°C - 125°C
Decomposition point/decomposition range:	Value: 350°C
Softening point/softening range:	Value: 70°C
Flash point:	Value: 380°C
Auto-ignition temperature:	500°C or only in conjunction with adjacent construction materials which tend to self-ignition (e.g. wood).
Oxidising properties:	No data available
Explosive properties:	No data available
Flammability (solid, gas):	No data available
Lower flammability or explosive limits:	No data available
Upper flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Evaporation rate:	No data available

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Relative density:	No data available	
Density:	Value:	25 - 49 kg/m ³
	Reference temperature:	20°C
Solubility in water:	Reference temperature:	20°C
	Remarks:	insoluble
Solubility(ies):	The products must not be brought in contact with organic solvents such as gasoline, nitro-dilution etc. Contact with fatty acids should be avoided.	
Partition coefficient: n-octanol/water:	No data available	
Viscosity:	No data available	

9.2 Other information

Other information: No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7)

10.3 Thermal stability

Thermal stability at typical application temperatures. Temperatures above 70°C can cause deformations of the material. Endurance stress at temperatures above 70°C should be avoided.

10.4 Possibility of hazardous reactions

None, if handled according to order.

10.5 Conditions to avoid

Contact with open flames.

10.6 Incompatible materials

Do not store together with flammable materials.

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10.7 Hazardous decomposition products

The formation of decomposition products depends on temperature, air supply and the presence of other materials. Decomposition products may include aromatic compounds, aldehydes, ethylbenzene, polymer fragments. Small amounts of aromatic hydrocarbons, e.g. styrene and ethylbenzene could be formed under non-firing conditions with very high temperatures.

10.8 Additional information

Protect from direct sunlight. Do not mix with organic solvents.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity:	Toxicologically harmless. In case of fire, see section 10.
Acute dermal toxicity:	Toxicologically harmless. In case of fire, see section 10.
Acute inhalation toxicity:	Toxicologically harmless. In case of fire, see section 10.
Skin corrosion/irritation:	Not skin irritant generally. Only mechanical injuries possible. Due to the physical properties is an absorption over the skin unlikely.
Serious eye damage/irritation:	Solids or dust can cause irritation or injury to the cornea as a result of mechanical stress.
Respiratory or skin sensitisation:	No data available
Germ cell mutagenicity:	No data available
Reproduction toxicity:	No data available
Carcinogenicity:	No data available
STOT – single exposure:	No data available
STOT – repeated exposure:	No data available
Aspiration hazard:	No data available

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute):	No data available
Toxicity to fish (chronic):	No data available
Toxicity to Daphnia (acute):	No data available
Toxicity to Daphnia (chronic):	No data available
Toxicity to algae (acute):	No data available

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Toxicity to algae (chronic): No data available
Bacteria toxicity: No data available

12.2 Persistence and degradability

A photochemical degradation of the surface expected under solar irradiation. A significant biological degradation is not to be expected.

12.3 Bioaccumulative potential

No acute toxicity to aquatic organisms. Regarding bioaccumulation, there is no evidence of significant leaching. Therefore, contamination of the ground water is unlikely.

12.4 Mobility in soil

No data available

12.5 Results of PBt and vPvB assessment

No data available

12.6 Other adverse effects

The product contains a substance which will be classified as hazardous to the environment. However, recent studies on aquatic organisms have shown that products such as XPS extruded rigid foam containing this substance would not be needed to be classified as hazardous to the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product: All efforts to recycle the material should be made. However, this material contains a halogen-containing flame retardant and should not be recycled together with free of flame retardant plastics.
Disposal key for XPS according to the European Waste Catalogue Regulation - AVV:
as monofraction (also with low adhesions) 170604
as mixed building waste 170904

Packaging: Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal.
Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

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SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

The product is not subject to ADR/RID/AND regulations

14.2 Transport IMDG

The product is not subject to IMDG regulations

14.3 Transport ICAO-TI/IATA

The Product is not subject to ICAO-TI/IATA regulations

14.4 Other information

No data available

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1-14.3

14.6 Special precautions for user

No data available

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation):
REACH candidate list of substances of very high concern (SVHC) for authorisation:

According to the data available and/or specifications supplied by upstream suppliers, the product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

According to the data available and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in Annex XIV (List of Substances Subject to Authorisation) as laid down in article 57 and 59 of REACH (EC) 1907/2006.

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Regulation (EC) No 1907/2006 (REACH) Annex XVII: restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles:

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances:

European Inventory of Existing Commercial Substances (EINECS):

Other regulations:

According to the data available and/or specifications supplied by upstream suppliers, the product does not contain any substances requiring authorisation as listed on Annex XVII or the REACH regulation (EC) 1907/2006.

The product is not subject to Part 1 or 2 of Annex I.

The components of this product are listed in EINECS or they are exempted.

REACH Regulation (EC) No. 1907/2006.

This product is an article.

This product contains hexabromocyclododecane with more than 0.1% (by mass fraction). It is listed according to article 59.1 for chemical substances of very high concern.

15.2 Chemical safety assessment

No data available

SECTION 16: Other information

Only related to Hexabromocyclododecane (see 3.2):

Further information:

Sources of key data used to compile the data sheet:

H400, H410: very toxic to aquatic organisms; Very toxic to aquatic organisms with long-term effects.

Authors responsible for the compilation of the material safety data sheet: 3D|Core GmbH & Co. KG, Oststr. 74, D-32051 Herford, Tel.: +49 (0) 5221 93639-0, Fax: +49 (0) 5221 93639-1, e-mail: info@3D-CORE.com

The Information is based on our knowledge however it does not represent or guarantee of product properties nor does it create any legal obligation.

Regulation (EC) No. 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

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