



Date de révisée: 01-03-2025

According to regulation (EC) 1272/2008 and 1907/2006 (REACH)

RUBRIQUE 1: Identification of the substance/mixture and of the company/undertakingProduct identifier: **Round Foam (Rondschuim)**

Foam definition: Polyurethane foam is an organic material with cellular structure.

Details of the supplier of the safety data sheet:

Belned BV, Ramgatseweg 4, 4941 VS Raamsdonksveer, The Netherlands info@belned.nl / www.belned.nl

Emergency telephone: 112

RUBRIQUE 2: Hazards identification

Classification of the substance or mixture

Polyurethane foams are not considered to be hazardous products nor as mixtures of dangerous substances. They are identified as industrial polymers. According to EU REACH Regulation polyurethane foams are defined as "articles".

Point of self-ignition (ASTM D 1929): Between 370 °C and 427 °C.

Fire hazard: The product is constituted by organics raw materials, nature based, with a high combustibility. Its combustion liberates high heat and intense smoke.

Fusion point: When energy is added to the product, this might fuse and result into inflammable products. During a fire, products may incur containing carbon monoxide, carbon dioxide, gaseous hydrocarbon and nitrogen. These substances may exist in different concentrations depending of the combustion conditions and may also appear corrosive gases if the foam formulation contains flame retardant.

RUBRIQUE 3: Composition/information on ingredients

Composition: Polyurethane polymer.

Appearance: Flexible foam cell.

Chemical description: Poly-addition product of isocyanates, polyether/polyester polyols and water, controlled by catalysts, stabilizers and other additives, resulting in a cellular polyurethane foam.

Regulatory Information: No labelling is currently required for this material according with the EU regulation on Classification, Packaging and Labelling of substances and mixtures.

RUBRIQUE 4: First aid measuresIn case of inhalation: No adverse effect known by inhalation following contact with PU foam. In case of a conversion step in which foam material is grinded and foam dust particles can be generated, a proper exhaustion of dust must be in place and/or PSP (personal safety protection) must be worn. Concentration in air equal to or greater than 10 mg/m³ 8-h TWA of inhalable dust is not allowed.

In case of skin contact: No adverse effects known following contact with PU foam.

In case of eye contact: Dust particles can cause mechanical irritation. Flush eyes with plenty of water for at least 10 minutes, occasionally lifting the upper and lower eyelids. Protective goggles should be worn for processes which generate dust.

In case of ingestion: There is no evidence that PU foam is toxic in case of ingestion. LD50 (oral, rats) > 5000 mg/kg.

Microbiological contamination: The polyurethane foam is sterile when manufactured.

Other measures: No specific measures are needed for fully cured polyurethane foam.

RUBRIQUE 5: Firefighting measuresFire extinguishing media: ABC type dry powder, carbon dioxide (CO₂), liquid foam and water.

Point of self-ignition (ASTM D 1929): Between 370°C and 427°C.

Fire hazard: The product is a combustible material and causes, when burning, intense heat and dense smoke. In a fire, decomposition products such as carbon black, carbon monoxide, carbon dioxide, gaseous hydrocarbons and nitrogen containing products can be generated in various concentrations depending on the combustion conditions.

Human protection in large fires: Fire fighters should use self-contained breathing equipment. Should the burning foam come in contact with skin, cool the burned area with water without removing the foam. In case of serious burns call a doctor immediately. In the event of persons inhaling combustion gases, they must be removed from the area and given swift medical attention.

Further fire information: Terms like "is flame retarded" or "contains flame retardants" are sometimes used to describe improved ignition resistance in small-scale tests and do not reflect hazards in large scale fire conditions.

Storage and processing: In processing flexible PU foams all prescriptions, directives and technical rules regarding the layout of workstations, machinery safety and workplace human protection must be observed. Because of the fire risks associated with certain processing operations on block foam (e.g. hot-wire cutting, crumbing, flame lamination, etc.) it is advisable to seek expert guidance on fire precautions, that need to be in place. Attention should be paid to the possibility to produce electrostatic charges during foam processing operations that may be dangerous and be an ignition source for the fire.

RUBRIQUE 6: Accidental release measures

Not applicable.

RUBRIQUE 7: Handling and storage

Handling foam: The polyurethane foam isn't danger for health at room temperature. It isn't necessary to wear suitable protective clothing for the handling of foam.

In processes where dust is produced, the personal protective equipment are required.

Ventilation: Provided there is adequate general ventilation, no special precautions are necessary for most handling and cutting operations.

Ventilation during some operations: Local exhaust ventilation is necessary for some operations i.e. where dust is produced from sawing, buffing or crumbing operations or where fumes are produced in flame laminating, thermoforming or hot wire cutting.

Storage: Store away from heat sources (match, cigarette, open fire, electrical heater, etc.). UV rays may cause surface discoloration. This does not affect the physical properties of the foam. Store in compliance with safety standards established by local Authorities and by specific requirements of the Insurance Companies.

RUBRIQUE 8: Exposure controls/personal protection

Respiratory protection: In case of dust generating operations, appropriate respiratory masks are recommended.

Eyes protection: Dust particles can cause mechanical irritation. Rinse with water to remove dust.

Protective clothing: Not required. In case of dust generating operations, skin protective clothes and appropriate respiratory masks are recommended.



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RUBRIQUE 9: Physical and chemical properties

Physical form and appearance	Solid, bulky and cellular, with elastic properties material.
Color	Grey.
Specific gravity	10 – 600 kg/m ³ .
Solubility in water	Insoluble.
Odour	Without odour or with a slight odour.
Flash ignition point	Between 315 °C to 370 °C.
Decomposition temperature	Above 180 °C.
Thermal energy	28.000 kJ/kg.
Melting point	The product has no melting point but will decompose into gaseous components.
Chemical description	Cell product of polyurethane resulting from the mixture of isocyanates, ether polyols, polyester polyol and water, controlled by catalysts, stabilizing agent and other substances.

RUBRIQUE 10: Stability and reactivity

The product is stable at temperatures between -40°C and +100°C.

RUBRIQUE 11: Toxicological information

Oral: There is no evidence that PU foam is toxic in case of ingestion. LD50 (oral, rats) > 5000 mg/kg

Inhalation: No adverse effect known by inhalation following contact with PU foam. The continuous inhalation of the polyurethane dust particles may cause lung infections, obstruction of the respiratory system and fibroses. Concentration in air equal to or greater than 10 mg/m³ 8-h TWA of inhalable dust not allowed.

Skin contact: No adverse effects known following contact with polyurethane foam.

Eye contact: Dust particles can cause mechanical irritation. Rinse with water to remove dust.

Microbiological contamination: The polyurethane foam is sterile when manufactured.

RUBRIQUE 12: Ecological information

Biodegradability: Depending on the kind of the polyurethane foam, the product is not biodegradable or is weakly degradable.

Additional ecological data: In case of a standard foam fire, the particles that fall in the water are harmless. They are sieved out of the water and/or disintegrated in the water treatment plant. Living organisms in the water are not endangered. Polyurethane flexible foams do not contain Ozone depleting substances and are not produced using products regulated by pertinent Legislation.

RUBRIQUE 13: Disposal considerations

Trim Production: Trim polyurethane foam and off-cuts can usually be recycled by several methods only if the residues are clean and sorted.

Post-Consumer Waste: A major recycling option exists via rebounding if a series of technical and economic conditions are met. If recycling is not possible, scrap or post-consumer PU foam waste can be used for energy recovery, disposed of at licensed landfill sites or be incinerated under controlled conditions in agreement with EU and National regulatory provisions and following advice from the local waste regulation authority.

Legislation: Under EU environmental legislation, there are no special requirements for the disposal of conventional PU foam.

RUBRIQUE 14: Informations relatives au transport

Labelling: PU foam is not classified for conveyance or supply under the International Agreements on Carriage of Dangerous Goods. The product is not classified as hazardous for any mode of transportation under current EU/UN regulations. There is no information concerning the type of transport.

Measures: It is not necessary to adopt any kind of special measure for the transport of polyurethane foam.

Additional information:

UN number / Number of hazard identification / Description of the goods / ADR/RID/IATA-DGR/IMDG: Not applicable.

RUBRIQUE 15: Regulatory information

HCS classification: Not applicable.

Labelling

Symbols/Risk phrases/Safety phrases: Not applicable.

Legislation: Environment Regulations and EU Directives do not establish any special requirement for the foam.

RUBRIQUE 16: Other information

Disclaimer of liability: Specific and local legislation is to be followed.

The information that is provided in this document was obtained based on the best existing sources, according to the latest available knowledge and with legal requirements on classification, packaging and labelling of dangerous substances. This does not imply that information is exhaustive in all cases. It is the users responsibility to determine the validity of this information for their application in each case. The manufacturer/producer assumes no legal responsibility for the use of this information.

Information: Flexible polyurethanes are polymers and defined in Data Systems, i.e. IMDS, as a product, not as a chemical compound. In terms of REACH, polyurethane foam is defined as article.

For the manufacture of PU foam, a series of raw materials are used. These include isocyanates, polyols (major proportion), water and additives (small proportion). These ingredients are fully reacted during foam manufacture and chemically converted into the PU polymer matrix. In addition, other essential additives of different characteristics are used in small concentrations, some of which could be also chemically bonded to the matrix. Depending on the final application, legal requirements or customers request PU foam may contain any of the following substances: Aliphatic and/or cycloaliphatic amine catalysts / Flame retardants / Silicone and/or organic surfactants / Inorganic Tin catalysts / Organic and/or inorganic pigments.

By the end of the production process and once the foam is completely cured, none of these raw materials or additives can be expressed as final percentages, as most are reactive and chemically bonded to the PU foam matrix or disappear gradually during the curing phase (24-72h) of the manufacture.


Prohibited substances such as mercury (Hg), Cadmium (Cd), Lead (Pb) and hexavalent Chromium (Cr6+) are not intentionally added to the formulation due to its hazardous nature. When reporting to customers in the automotive sector the use of IMDS is required. Besides the material PU foam, additives are to be reported according to the requirements of GADSL (Global Automotive Declarable Substance List).



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Technical information

Physical properties	Based on the standard	Specifications	Method
Combustibility  [13mm]	FMVSS 302	< 100 (mm/min)	PQL008
Hardness[CV 40%/4]	ISO 3386-1	4,1 - 5,5 kPa	PQL004
Density	ISO 845	23 - 26 kg/m ³	PQL001
Tensile strength (a)	ISO 1798	> 130 kPa	PQL003
Elongation at break (a)	ISO 1798	> 120%	PQL003
Compression set (23°C, 75%, 22h) (a,c)	ISO 1856	< 5%	PQL006
Cell number	EN 15702	12 - 20 No/cm	PQL010

The aforementioned information and technical data, as well as any further advice given is provided to the best of our knowledge and may only be considered as non binding reference. They are for orientation purposes only and do not replace a product specification which is firm subject to a separate written agreement. Any consultation does not release the customer from any obligation of his own verification or validation of the product concerning its suitability for the process and the intended purpose. This data sheet is subject to alterations at any time.

All polyurethane foams including modified foams will burn and generate smoke and gases. Performance conditions and corresponding data refer to typical performance in specific tests, such as ISO 3795, and should not be construed to imply the behavior of this or any other product under other fire conditions. All data regarding these products was obtained using specific test methods under controlled laboratory conditions intended to measure performance against specifications. Belned B.V. warrant its products only to direct buyers.

Belned B.V. is not responsible for any subsequent change once the merchandise is shipped to the customer.

**Safety and Regulation**

- a) Test performed at a frequency according to the process capability for this physical characteristic.
- b) Test performed in the layout inspection.
- c) Test not present in CoA.