

## MATERIAL INFORMATION DATA SHEET

### Polyurethane – flexible foam

#### Premise

Polyurethane foams are not hazardous products nor mixtures of dangerous substances. They are identified as industrial polymers. According to EU Regulation 1907/2006/EC (REACH) Polyurethane foams are defined as “articles” and in that respect they are not bound to obligation for a Safety Data Sheet.

Nevertheless, in order to provide Customers with useful information on products’ main characteristics, Europur prepared this Material Information Data Sheet, which - only for the sake of convenience and simplicity - shows a structure similar to Safety Data Sheets for dangerous Substances and Mixtures.

### **1. PRODUCT AND COMPANY IDENTIFICATION**

#### **1.1 PRODUCT:**

Polyurethane foams with two different trade name:

**LINEA CIRENE (CR)**

**LINEA CIRETER (CT)**

#### **1.2 COMPANY:**

CIRES S.p.A.  
Via Carlotti 42 – 55016 Porcari - Lucca (Italia)  
Tel. 0583-299034 Fax. 0583-299569  
Email: [qualita@cires.it](mailto:qualita@cires.it); [info@cires.it](mailto:info@cires.it)

### **2. CHEMICAL DESCRIPTION**

CAS N° 9009-54-5

Product names Polyether Polyurethane Foam or Polyester Polyurethane Foam

Composition Polyurethane polymer

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

### **3. HAZARDS INDICATION**

No labeling is required for this material by existing EU Regulation on Classification, Packaging and Labeling of substances and mixtures (EC) 1272/2008, except in cases it is bound to conform to the Biocidal Products Regulation (BPR) (EU) 528/2012.

#### 4. FIRST AID MEASURES

Skin contact	No adverse effects known following contact with PU foam.
Eye contact	Dust particles can cause mechanical irritation. Rinse with water to remove dust.
Microbiological: contamination	PU foam is sterile when manufactured.

#### 5. FIRE HAZARDS

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.
Melting point	The product has no melting point but will decompose into gaseous components
Suitable fire extinguishers	Water, carbon dioxide, dry powder, liquid foam
Human protection in large fires	Fire fighters should use self-contained breathing apparatus. 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 & 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.

#### 6. ACCIDENTAL RELEASE MEASURES

Not applicable.

#### 7. PROTECTIVE MEASURES IN HANDLING, STORAGE AND PROCESSING

Handling foam	Special protective equipment and clothing is not necessary when handling foam, since it does not irritate the skin, eyes or respiratory system, except in those processes where dust is produced
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, thermo-forming or hot wire cutting
Storage	Store away from heat sources (match, cigarette, open fire, electrical heater, ...). 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.

## 8. INDIVIDUAL PROTECTION

Eye protection	Protective goggles should be worn for processes which generate dust.
Protective clothing	Not required. In case of dust generating operations skin protective clothes and appropriate respiratory masks are recommended.
Other measures	No specific measures are needed for fully cured PUR foam. Gloves should be used when handling fresh foams.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<u>Physical form/appearance:</u>	Cellular material with elastic properties
<u>Colour:</u>	Varies according to manufacturer's choice
<u>Odour:</u>	None or mild odour
<u>Specific gravity:</u>	20-55 kg/m <sup>3</sup>
<u>Decomposition temperature:</u>	Above 180°C
<u>Flash ignition point:</u>	Between 315°C to 370°C
<u>Auto-ignition point (ASTM D 1929):</u>	Between 370°C to 427°C
<u>Thermal energy:</u>	28.000 KJ/kg
<u>Stability and reactivity:</u>	The product is stable at temperatures between - 40°C and + 100°C
<u>Solubility in water:</u>	Insoluble
<u>Solubility in organic solvents:</u>	Insoluble, swells depending on the type of solvent.

## 10. STABILITY AND REACTIVITY

The product is stable at temperatures between - 40 ° C and + 100 ° C.  
We recommend using the product at room temperature to avoid accelerated degradation.

## 11. TOXICOLOGICAL DATA

Oral	There is no evidence that PU foam is toxic in case of ingestion. LD50(oral-rats) < 5.000 mg/kg
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/m <sup>3</sup> 8-h TWA of inhalable dust not allowed.

## 12. ECOLOGICAL INFORMATION

Biodegradability	Dependent on the type of PU foam, the product is not degradable or degrades slowly
Additional ecological data	PU Flexible Foams do not contain Ozone depleting substances and are not produced using products regulated by pertinent legislation.

## 13. DISPOSAL CONSIDERATIONS

Production trim	Trim polyurethane foam and off-cuts can usually be recycled by several methods provided the residues are clean and sorted.
Post-Consumer Waste	A major recycling option exists via rebonding 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 or be disposed of at licensed landfill sites or

by incineration 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.

#### 14. TRANSPORT INFORMATION

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.

#### 15. REGULATORY INFORMATION

No labeling is currently required for PUR foams.

#### 16. OTHER INFORMATION

For more information on the type of product, please refer to the technical data sheet of the single item.

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**NOTE:** the data and information contained in this Information Sheet are based on the knowledge available at the date of issue or subsequent revisions. No guarantee can be given as to the sufficiency of the security measures contained in the Data Sheet, nor can it be excluded that other or additional measures may be required in particular or exceptional circumstances. The user must ensure the adequacy and completeness of the information in relation to the particular use he must make of it. This information relates exclusively to Flexible Polyurethane Foam and is not necessarily valid if it is used in combination with other products or following any modification process.