

Poly(caprolactone)

Safety Data Sheet

complies with Regulation (EC) No. 1907/2006 (REACH) as amended by Regulation (EU) 2015/830 Date of issue: 01/10/2023 Version: 1.0

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

1.1. Product Identifier

Product Shape : Substance
Name : CAPROLACTISSE 100
Chemical designation : Poly(caprolactone)
CAS RN : 81208-91-5
Synonyms : PCL

1.2. Identified Relevant Use of the Substance or Mixture and Discouraged Use

1.2.1. Identified Relevant Uses

Substance/Mixture Use: 3D Printing Application

1.2.2. Discouraged Uses

This product cannot be implanted in humans.

1.3. Information about the supplier of the safety data sheet

Lattice Medical
80, rue du Docteur Yersin
59120
LOOS - FRANCE
T +33 6 73 59 08 71
julien.payen@lattice-medical.com

1.4. Emergency number

Country	Organization/Society	Address	Emergency number	Comment
France	ORFILA	http://www.centres-antipoison.net	+33 (0)8 00 59 59 59 (Lille)	

SECTION 2: Hazard Identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Uncategorized

Adverse Physicochemical, Human Health and Environmental Effects

To the best of our knowledge, this product does not present any particular danger under normal conditions of use.

2.2. Labelling elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Labelling not applicable

2.3. Other hazards

Other hazards that do not result in classification: Dust can form an explosive mixture with air.

This substance/mixture does not meet the PBT criteria of the REACH Regulation Annex XIII

This substance/mixture does not meet the vPvB criteria of the REACH Regulation Annex XIII

Poly(caprolactone)

Safety Data Sheet

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SECTION 3: Composition/Component Information

3.1. Substances

Name	Product Identifier	Classification according to Regulation (EC) No 1272/2008 [CLP]
Poly(caprolactone)	(CAS RN) 81208-91-5	Uncategorized

3.2 Mixtures

Not applicable

SECTION 4: First Aid

4.1. Description of first aid

First aid after inhalation	: Remove the subject from the contaminated area and bring it to fresh air. If symptoms persist, call a doctor.
First Aid After Skin Contact	: Wash immediately with soap and plenty of water while removing all contaminated clothing and footwear. Seek immediate medical attention if symptoms occur.
First Aid After Eye Contact	: Rinse immediately and thoroughly with water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention if symptoms occur.
First Aid After Ingestion	: Rinse the mouth. Seek medical attention if symptoms occur.

4.2. Main symptoms and effects, acute and delayed

Symptoms/Effects : None known.

4.3. Indication of any immediate medical care and special treatment required

Symptomatic treatment.

ITEM 5: Fire-fighting measures

5.1. Means of extinguishing

Appropriate extinguishing methods : Spray water, foam or carbon dioxide (CO₂), extinguishing powder.

5.2. Special hazards resulting from the substance or mixture

Hazardous Decomposition Products : By thermal decomposition (pyrolysis), releases: Carbon monoxides (CO, CO₂).

5.3. Advice for firefighters

Firefighting Instruction	: Cool containers exposed to heat with water spray. Contain and contain extinguishing fluids.
Fire protection	: Do not intervene without appropriate protective equipment. Self-contained self-contained breathing apparatus. Full body protection.

SECTION 6: Measures to be taken in the event of accidental dispersal

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General measures : Ensure proper ventilation.

6.1.1. For non-first aiders

Emergency Procedures : Evacuate the danger zone. Do not touch or step on spilled product. Avoid contact with eyes, skin or clothing. Prevent or limit the formation and dispersion of dust. Rule out any possible source of ignition.

Poly(caprolactone)

Safety Data Sheet

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6.1.2. For first aiders

Emergency Procedures : Do not intervene without appropriate protective equipment. For more information, refer to Section 8: "Exposure Control-Personal Protection".

6.2. Precautions for the protection of the environment

Damming and containing spreading. Do not discharge into sewers and rivers.

6.3. Containment and Clean-up Methods and Equipment

For Retention : Prevent or limit the formation and dispersion of dust. Sweep or shovel the spilled product and place it in a suitable container for disposal.

Cleaning Processes : Wash the non-recoverable residue with plenty of water.

Other information : Dispose of solid materials or residues at a licensed facility.

6.4. Reference to other headings

See section 13 for disposal of waste resulting from cleaning.

SECTION 7: Handling and storage

7.1. Precautions to be taken for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety practices. Ensure proper ventilation. Avoid the formation of dust. Avoid contact with skin, eyes or clothing. Do not breathe dust. Keep away from ignition sources.

Hygiene measures : Do not drink, eat or smoke in the workplace. Wash your hands after handling.

7.2. Conditions for safe storage, including possible incompatibilities

Storage conditions : Store in a dry, cool, well-ventilated place. Keep the container tightly closed.

Store under inert gas. Protect from moisture. Keep away from ignition sources.

Incompatible materials : Water, humidity.

Storage Temperature : -4°F/ -20°C

7.3. Specific end-use(s)

No further information available

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

No further information available

8.2. Exposure controls

Hand Protection:

Not required under normal conditions of employment. In case of risk of splashing: Chemical-resistant gloves (according to standard NF EN 374 or equivalent)

Eye Protection:

Not required under normal conditions of employment. If there is a risk of splashing: Safety glasses with side guards

Skin & Body Protection:

Wear appropriate long-sleeved protective clothing.

Respiratory Protection:

Poly(caprolactone)

Safety Data Sheet

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In case of vapour/dust formation: for short exposure, filter device, A-P1 combination filter.

SECTION 9: Physical and chemical properties

9.1. Information on essential physical and chemical properties

Physical state	:Solid
Appearance	:Filament
Colour	:White
Smell	:Odourless.
Odour threshold	: No data available
ph	: No data available
Relative evaporation rate (butyl acetate = 1)	: No data available
Melting point	: Approx 56°C (DSC)
Freezing Point	: No data available
Boiling point	: No data available
Flash Point	:Not applicable
Auto-ignition temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative Density	: No data available
Water solubility	:Hydrolysis
Solubility (other)	: Dimethylformamide : Soluble Dioxane: Soluble Dimethyl sulfoxide: Soluble
n-octanol/water partition coefficient (Log Pow)	: No data available
Viscosity, kinematics	:Not applicable
Viscosity, dynamic	:Not applicable
Explosive Properties	: Not explosive.
Oxidizing properties	: Non-oxidizing according to CE criteria.
Explosive Limits	:Not applicable

9.2. Other information

Other properties : None

TOPIC: Stability and responsiveness

10.1. Responsiveness

To the best of our knowledge, this product does not present any particular danger under normal conditions of use.

10.2. Chemical Stability

The product is stable under normal conditions. Depolymerization starts at 150 °C.

10.3. Possibility of Dangerous Reactions

No known reaction

10.4. Conditions to be avoided

Direct sunlight, humidity and warmth.

Poly(caprolactone)

Safety Data Sheet

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10.5. Incompatible materials

Unknown

10.6. Hazardous Decomposition Products

No dangerous decomposition products are formed in the event of a fire: Carbon monoxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral/dermal/inhalation)	: Unclassified (Based on available data, classification criteria are not met)
Skin corrosion/skin irritation	: Unclassified (Based on available data, classification criteria are not met)
Severe eye damage/eye irritation	: Unclassified (Based on available data, classification criteria are not met)
Respiratory or skin sensitization	: Unclassified (Based on available data, classification criteria are not met)
Mutagenicity on germ cells	: Unclassified (Based on available data, classification criteria are not met)
Carcinogenicity	: Unclassified (Based on available data, classification criteria are not met)
Reproductive toxicity	: Unclassified (Based on available data, classification criteria are not met)
Specific Target Organ Toxicity (single exhibition)	: Unclassified (Based on available data, classification criteria are not met)
Specific Target Organ Toxicity (repeated exposure)	: Unclassified (Based on available data, classification criteria are not met)
Suction Hazard	: Uncategorized (Technical impossibility to obtain data)

Poly(lactic-co-caprolactone) acid (65408-67-5)

Viscosity, kinematics : Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Hazards to the aquatic environment, short-term (acute) : Unclassified (Based on available data, classification criteria are not met)
Hazards to the aquatic environment, long-term (chronic) : Unclassified (Based on available data, classification criteria are not met)

12.2. Persistence and degradability

Poly(caprolactone) (81208-91-5)

Persistence and degradability	No data available
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12.3. Potential for Bioaccumulation

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Potential for Bioaccumulation	No data available
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12.4. Mobility in the Ground

No further information available

12.5. Results of PBT and vPvB assessments

Poly(caprolactone) (81208-91-5)

This substance/mixture does not meet the PBT criteria of the REACH Regulation Annex XIII

This substance/mixture does not meet the vPvB criteria of the REACH Regulation Annex XIII

12.6. Other adverse effects

No further information available

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Waste Treatment Methods

: Dispose of in accordance with applicable local requirements.

Recommendations for the treatment of the product/packaging

: Do not reuse empty containers.

Additional information

: The user's attention is drawn to the possible existence of specific laws, regulations and administrative provisions at the Community, national or local level, relating to disposal, concerning him/her.

European Waste Catalogue Code (ECD)

: 16 05 09 - Discarded chemicals other than those classified under 16 05 06, 16 05 07 or 16 05 08

SECTION 14: Transport information

In accordance with the requirements of ADR/RID/IMDG/IATA/AND

ADR	IMDG	IATA	DNA	RID
14.1. UN Number				
Unregulated	Unregulated	Unregulated	Unregulated	Unregulated
14.2. UN Proper Shipping Name				
Unregulated	Unregulated	Unregulated	Unregulated	Unregulated
14.3. Transport hazard class(es)				
Unregulated	Unregulated	Unregulated	Unregulated	Unregulated
14.4. Packing Group				
Unregulated	Unregulated	Unregulated	Unregulated	Unregulated
14.5. Environmental Hazards				
Unregulated	Unregulated	Unregulated	Unregulated	Unregulated

14.6. Special precautions to be taken by the user

Transportation by land

Unregulated

Shipping

Unregulated

Air transport

Unregulated

Inland waterway transport

Unregulated

Poly(caprolactone)

Safety Data Sheet

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Rail transport

Unregulated

14.7. Carriage in bulk in accordance with Annex II of the Marpol Convention and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Substance-specific safety, health and environmental regulations/legislation

15.1.1. EU Regulation

No restrictions according to Annex XVII of REACH

Poly(caprolactone) is not on the REACH Candidate List

Poly(caprolactone) is not listed in Annex XIV of REACH

Poly(caprolactone) is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 on the export and import of hazardous chemicals

Poly(caprolactone) is not subject to Regulation (EU) 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National Guidelines

No further information available

15.2. Chemical safety assessment

No chemical safety assessment was conducted

SECTION 16: Other information

Abbreviations and acronyms:	
DNA	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CASE	Chemical Abstracts Service (division of the American Chemical Society)
CLP	Regulation on classification, labelling and packaging; Regulation (EC) No 1272/2008
ECHA	ECHA - European Chemicals Agency
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
PBT	Persistent, bioaccumulative and toxic
REACH	Registration, evaluation, authorisation and restriction of chemicals. Regulation (EU) REACH No. 1907/2006
RID	International Regulations concerning the Carriage of Dangerous Goods by Rail
vPvB	Very persistent and highly bioaccumulative

Data Sources : ECHA - European Chemicals Agency. Supplier SDSs.

EU SDS (Annex II REACH)

This information is based on our current knowledge and describes the product for health, safety and environmental purposes only. They should therefore not be interpreted as guaranteeing any specific property of the product.