

	<b>MATERIAL DATA SAFETY DATA SHEET</b>	ESDS No.	E-01
	<b>PROPYLENE CARBONATE</b> According to Regulation (EC) No 1907/2006, Annex II, Amended by COMMISSION REGULATION (EU) 2020/878, According to REGULATION (EC) No 1272/2008	Effective From	20/01/2025

CIRS eSDS Record Number: CSSS-TCO-010-130781

### Section 1 Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier:

Identification on the label/Trade name: Propylene carbonate  
 Additional identification: Nanoform is NOT covered by this eSDS.  
 Identification of the product: CAS#108-32-7 EC#203-572-1  
 Index Number: 607-194-00-1  
 REACH registration No.: 01-2119537232-48-XXXX

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

##### 1.2.1 Identified uses:

F-1: Distribution after import; formulation and/or (re)packing IW-  
 2: Use as processing aid in an industrial setting  
 PW-3: Use as processing aid by professional worker  
 PW-4: Professional use of the substance in biocidal products SL-4: Service life (consumers)

##### 1.2.2 Uses advised against:

No uses advised against are identified.

#### 1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative): Chemical Inspection & Regulation Service Limited  
 Website: www.cirs-group.com  
 Tel: +917291999329  
 Email: info@cirs-group.com  
 Supplier(Manufacturer): **BLOOMCHEMAG BV**  
 Address: Sint-Antoniussstraat 16 b1  
 B-2400, Mol, Belgium.  
 Contact person(E-mail): [info@bloomchemag.com](mailto:info@bloomchemag.com)  
 Telephone: +91 7291970499

#### 1.4 Emergency telephone Number:

+91 7291970499 (Only available during office hours (9:00a.m.-17:30p.m.)

Available outside office hours?

YES

NO

### Section 2 Hazards identification

## 2.1 Classification of the substance or mixture:

### 2.1.1 Classification of the substance:

The substance is classified as following according to REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Eye Irrit. 2	H319

For full text of H- phrases: see section 2.2.

### 2.2 Label elements: Hazard pictogram(s):

The substance is not identified as having endocrine disrupting properties.



**Signal word:**

Warning

**Hazard statement(s):**

H319: Causes serious eye irritation.

**Precautionary statement(s):**

P264: Wash hands thoroughly after handling.

P280: Wear protective gloves/ protective clothing/eye protection/face protection.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

**Supplemental Hazard information (EU)**

Not applicable.

### 2.3 Other hazards:

The substance is not PBT / vPvB.

## Section 3 Composition/information on ingredients

**Substance/Mixture:**

Substance

**Ingredient(s):**

Chemical Name	Registration No.	CAS No.	EC No.	Concentration	Specific Concentration limits, Acute Toxicity Estimates (ATE) M-Factors, Toxicity
Propylene carbonate	01-2119537232-48-XXXX	108-32-7	203-572-1	99.7 % (w/w)	N/A

## Section 4 First aid measures

### 4.1 Description of first aid measures:

Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Treat symptomatically. As in all cases of potential poisoning, Obtain medical advice immediately.

#### 4.1.1 In case of inhalation:

Keep patient calm, remove to fresh air. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

#### 4.1.2 In case of skin contact:

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**4.1.3 In case of eyes contact:**

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

**4.1.4 In case of ingestion:**

Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**4.2 Most important symptoms and effects, both acute and delayed:**

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further symptoms are possible.

**4.3 Indication of any immediate medical attention and special treatment needed:**

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

## Section 5 Firefighting measures

**5.1 Extinguishing media:**

**Suitable extinguishing media:**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Such as water spray, dry powder, foam, carbon dioxide.

**Unsuitable extinguishing media:**

High volume water jet.

**5.2 Special hazards arising from the substance or mixture**

In case of fire, the following can be released: Oxides of carbon.

**5.3 Advice for firefighters:**

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6 Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures:**

**6.1.1 For non-emergency personnel:**

Handle in accordance with good industrial hygiene and safety practice. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**6.1.2 For emergency responders:**

Wear suitable protective equipment. Apply the same recommendations as above.

**6.2 Environmental Precautions:**

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**6.3 Methods and material for Containment and Cleaning up:** Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows.  
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal according to local regulations.

**6.4 Reference to other sections:** See Section 8 for information on personal protection equipment. See Section 13 for information on disposal.

## Section 7 Handling and storage

### 7.1 Precautions for safe handling:

#### 7.1.1 Protective measures:

Put on appropriate personal protective equipment. Do not ingest. Avoid contact with eyes, skin and clothing. Smoking, eating and drinking should be prohibited in the application area. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Suitable equipment for dealing with fires, spills and leaks must be readily available. Earth (ground) lines and equipment used during transfer to reduce possibility of static spark initiated fire or explosion.

#### 7.1.2 Advice on general occupational hygiene:

Good personal washing routines should be followed. Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke. Remove contaminated clothing and protective equipment before entering eating areas.

### 7.2 Conditions for safe storage, including any incompatibilities:

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end use(s):

Not applicable

## Section 8 Exposure Controls/Personal Protection

### 8.1 Control parameters:

**8.1.1 Occupational exposure limits:** Not available.

**8.1.2 Additional exposure limits under the** Not available.

**8.1.3 DNEL/DMEL and PNEC-Values:**

Workers - Hazard via inhalation route	Systemic effects-Long term exposure	DNEL=70.53 mg/m <sup>3</sup>
Workers - Hazard via inhalation route	Local effects-Long term exposure	DNEL=20 mg/m <sup>3</sup>
Workers - Hazard via dermal route	Systemic effects-Long term exposure	DNEL=20 mg/kg bw/day
Workers - Hazard via dermal route	Local effects-Long term exposure	DNEL=10 mg/cm <sup>2</sup>
General Population - Hazard via inhalation route	Systemic effects-Long term exposure	DNEL=17.4 mg/m <sup>3</sup>
General Population - Hazard via inhalation route	Local effects-Long term exposure	DNEL=10 mg/m <sup>3</sup>
General Population - Hazard via dermal route	Systemic effects-Long term exposure	DNEL=10 mg/kg bw/day
General Population - Hazard via oral route	Systemic effects-Long term exposure	DNEL=10 mg/kg bw/day
Hazard for aquatic organisms	Freshwater	PNEC=0.9 mg/L
Hazard for aquatic organisms	Marine water	PNEC=0.09 mg/L
Hazard for aquatic organisms	Intermittent releases	PNEC=9 mg/L
Hazard for aquatic organisms	STP	PNEC=7400 mg/L
Hazard for aquatic organisms	Sediment (freshwater)	No exposure of sediment expected
Hazard for aquatic organisms	Sediment (marine water)	No exposure of sediment expected
Hazard for terrestrial organisms	Soil	PNEC=0.81 mg/kg soil dw
Hazard for predators	Secondary poisoning	No potential to cause toxic effects accumulated (in high organism via the food chain)

### 8.2 Exposure controls:

**8.2.1 Appropriate engineering controls:** Handle in accordance with good industrial hygiene and safety practice.

Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

**8.2.2 Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

#### Skin protection

**Hand protection:** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: natural rubber (latex) or nitrile rubber.

**Body protection:** Standard work wear and safety boots for normal handling and use.

**Respiratory protection:** Use with adequate ventilation. In case of insufficient local exhaust ventilation and/or handling with open equipment: Respiratory air fed breathing apparatus if there is a risk of exposure to high vapour concentrations. If using a half mask: organic vapour cartridge Ax type.

**Thermal hazards:** Wear suitable protective clothing to prevent heat.

**8.2.3 Environmental exposure controls:** Avoid discharge into the environment. According to local regulations, Federal and official regulations.

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## Section 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties:

<b>Appearance:</b>	Liquid at 20 °C and 101.3 kPa
<b>Colour:</b>	Clear
<b>Odour:</b>	Not available
<b>Odour threshold:</b>	Not available
<b>pH:</b>	Not available
<b>Melting/freezing point/range (°C):</b>	-49 °C at 101.3 kPa
<b>Boiling point/range (°C):</b>	242 °C at 101.3 kPa
<b>Flash point (°C):</b>	116 °C at 1013.25 hPa
<b>Evaporation rate:</b>	Not available
<b>Flammability limit - lower (%):</b>	Not available
<b>Flammability:</b>	Non flammable
<b>Ignition temperature (°C):</b>	Not available
<b>Upper/lower explosive limits:</b>	Not available
<b>Vapour pressure (20°C):</b>	0.06 hPa at 20 °C
<b>Vapour density:</b>	Not available
<b>Relative Density:</b>	1.2 at 20 °C
<b>Bulk density (kg/m<sup>3</sup>):</b>	Not available
<b>Water solubility (g/L):</b>	200 g/L at 25 °C
<b>n-Octanol/Water (log Po/w):</b>	Log Kow (Log Pow): - 0.41 at 20 °C
<b>Auto-ignition temperature:</b>	430 °C at 101.3 kPa
<b>Decomposition temperature:</b>	Not available
<b>Viscosity, dynamic (mPa.s):</b>	2.76 mPa · s (dynamic) at 20 °C
<b>Explosive properties:</b>	Non explosive
<b>Oxidising properties:</b>	Oxidising: no
<b>Molecular Formula:</b>	C4H6O3

**Molecular Weight (g/mol):** 120 g/mol

**9.2. Other information:**

**solubility(solvent-oil to be specified) etc:** Not available

**Surface tension:** Based on chemical structure, no surface activity is to be expected.

**Dissociation constant in water(pKa):** pKa at 20 °C: 3.92

**Oxidation-reduction Potential:** Not available

## Section 10 Stability and reactivity

**10.1 Reactivity:** The substance is stable under normal storage and handling conditions.

**10.2 Chemical stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**10.3 Possibility of hazardous reactions:** No dangerous reaction known under conditions of standard use.

**10.4 Conditions to avoid:** Incompatible materials. High temperatures. Proximity to sources of ignition.

**10.5 Incompatible materials:** Strong oxidizing agents. Strong reducing agents. Strong acids. Strong alkalis.

**10.6 Hazardous decomposition products:** Oxides of carbon.

## Section 11 Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008: in Re

<b>Acute toxicity:</b>	>5000 mg/kg bw
<b>LD50(Oral, Rat):</b>	
<b>LD50(Dermal, Rabbit):</b>	>2000 mg/kg bw
<b>LC50(Inhalation, Rat):</b>	Not available
<b>Skin corrosion/Irritation:</b>	Not classified
<b>Serious eye damage/irritation:</b>	Causes serious eye irritation.
<b>Respiratory or skin sensitization:</b>	Not classified
<b>Germ cell mutagenicity:</b>	Not classified
<b>Carcinogenicity:</b>	Not classified
<b>Reproductive toxicity:</b>	Not classified
<b>STOT- single exposure:</b>	Not classified
<b>STOT-repeated exposure:</b>	Not classified
<b>Aspiration hazard:</b>	Not classified

### 11.2 Information on other hazards

**Endocrine disrupting properties** The substance is not identified as having endocrine disrupting properties.

**Other information** Not applicable

## Section 12 Ecological information

### 12.1 Toxicity:

#### Acute (short-term) toxicity:

LC50(96h, Fish): >1000 mg/L

EC50(48h, Daphnia magna): >1000 mg/L

EC50(72h, Algae/aquatic plants): >900 mg/L

#### Chronic (long-term) toxicity:

NOEC(Fish): Not available

NOEC(Daphnia magna): Not available

NOEC(Algae/aquatic plants): 900 mg/L  
(72h)

12.2 Persistence and degradability: Readily biodegradable.

12.3 Bioaccumulative potential: Low potential for bioaccumulation based on log Kow <=3.

12.4 Mobility in soil: Koc at 20 °C: 6.41; LogKoc: 0.81

12.5 Results of PBT and vPvB assessment: The substance is not PBT / vPvB.

12.6 Endocrine disrupting properties: The substance is not identified as having endocrine disrupting properties.

12.7 Other adverse effects: Not available.

12.8 Additional information: Not available.

## Section 13 Disposal considerations

### 13.1 Waste treatment methods:

Dispose of in accordance with all applicable local and national regulations. Use recovery/recycling where feasible, otherwise incineration is the recommended method of disposal. Empty containers may contain hazardous residues. Do not cut, puncture or weld on or near to the container. Labels should not be removed from containers until they have been cleaned. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers.

## Section 14 Transport information

## Section 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: Relevant information regarding authorization: Not applicable. Relevant information

	Land transport (ADR/RID)	Inland waterways (ADN)	Sea transport (IMDG)	Air transport (ICAO/IATA)
1 UN number or ID number	Not regulated	Not regulated	Not regulated	Not regulated

regarding restriction:

Not applicable.

Other EU regulations:

Employment restrictions concerning young person must be observed. For

use only by technically qualified individuals.

**Other National regulations:**

Not applicable

**15.2 Chemical safety assessment**

YES NO

<b>14.2 UN Proper shipping name</b>	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3 Transport hazard Class(es)</b>	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4 Packing group</b>	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5 Environmental hazards</b>	No	No	No	No
<b>14.6 Special precautions for user</b>	See section 2.2	See section 2.2	See section 2.2	See section 2.2
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not regulated	Not regulated	Not regulated	Not regulated

**16.1 Indication of changes:**

Version 1.0 Amended by (EU) 2020/878

Version 2.0 Exposure scenarios are placed after section 16.

**16.2 Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID:

Regulation for rail International transportation of Dangerous goods

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland

**Section 16 Other information**

Waterways IMDG: Code international maritime dangerous goods code

ICAO: International Civil Aviation Organization

IATA: International Air Transport Association

LC50: median lethal concentration

EC50: The effective concentration of substance that causes 50% of the maximum response. NOEC: No Observed Effect Concentration

DNEL: derived no-effect level

PNEC: predicted no-effect concentration

**16.3 Key literature references and sources for data**

ECHA Registered substances data

**16.4 Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]**

Classification according to Regulation (EC) No. 1272/2008	Classification procedure
Eye Irrit. 2	H319 On basis of test data

**16.5 Relevant H-statements (number and full text):**

H319: Causes serious eye irritation.

**16.6 Training instructions:**

Not applicable.

**16.7 Further information:**

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

**16.8 Notice to reader:**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.