

## SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

### Propylene carbonate

Creation date 29th May 2020  
Revision date Version 1.0

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

<b>1.1. Product identifier</b>	Propylene carbonate
Substance / mixture	substance
Chemical name	Propylene carbonate
CAS number	108-32-7
Index number	607-194-00-1
EC (EINECS) number	203-572-1
Registration number	01-2119537232-48-xxxx
<b>1.2. Relevant identified uses of the substance or mixture and uses advised against</b>	Chemical production, analytical chemistry, laboratory synthesis, industrial applications.
Substance's intended use	
Substance uses advised against	The product should not be used in ways other than those referred in Section 1.
<b>1.3. Details of the supplier of the safety data sheet</b>	
<b>Supplier</b>	
Name or trade name	Ing. Petr Švec - PENTA s.r.o.
Address	Radiová 1122/1, Praha 10, 102 00 Czech Republic
Identification number (CRN)	02096013
VAT Reg No	CZ02096013
Phone	+420 226 060 681
E-mail	info@pentachemicals.eu
Web address	www.pentachemicals.eu
<b>Competent person responsible for the safety data sheet</b>	
Name	Ing. Petr Švec - PENTA s.r.o.
E-mail	info@pentachemicals.eu
<b>1.4. Emergency telephone number</b>	
National Health Service (NHS) 111	
National poisoning information centre Scotland, NHS 24: 111 112	

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

##### Classification of the substance in accordance with Regulation (EC) No 1272/2008

The substance is classified as dangerous.

Eye Irrit. 2, H319

Full text of all classifications and hazard statements is given in the section 16.

##### Most serious adverse effects on human health and the environment

Causes serious eye irritation.

##### 2.2. Label elements

##### Hazard pictogram



**Signal word**  
Warning

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#### Dangerous substance

Propylene carbonate  
(Index: 607-194-00-1; CAS: 108-32-7)

#### Hazard statements

H319 Causes serious eye irritation.

#### Precautionary statements

P280 Wear eye 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.

#### 2.3. Other hazards

Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

##### Chemical characterization

The substance specified below.

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 607-194-00-1 CAS: 108-32-7 EC: 203-572-1 Registration number: 01-2119537232-48-xxxx	<b>substance main component</b> Propylene carbonate	≥99	Eye Irrit. 2, H319	

Full text of all classifications and hazard statements is given in the section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

##### If inhaled

Terminate the exposure immediately; move the affected person to fresh air.

##### If on skin

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists.

##### If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue at least for 10 minutes. Provide medical treatment, specialized if possible.

##### If swallowed

Rinse out the mouth with water and provide 2-5 dL of water. Provide medical treatment if the person has any health problems.

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#### 4.2. Most important symptoms and effects, both acute and delayed

##### If inhaled

Not expected.

##### If on skin

Not expected.

##### If in eyes

Causes serious eye irritation.

##### If swallowed

Irritation, nausea.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

##### Unsuitable extinguishing media

Water - full jet.

#### 5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

#### 5.3. Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Prevent contact with skin and eyes.

#### 6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

#### 6.3. Methods and material for containment and cleaning up

Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.

#### 6.4. Reference to other sections

See the Section 7, 8 and 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Prevent contact with skin and eyes. Wash hands and exposed parts of the body thoroughly after handling. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection.

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

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose.

#### 7.3. Specific end use(s)

not available

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#### SECTION 8: Exposure controls/personal protection

##### 8.1. Control parameters

###### DNEL

Propylene carbonate

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Dermal	50 mg/kg	Systemic chronic effects	
Workers	Inhalation	20 mg/m <sup>3</sup>	Local acute effects	
Consumers	Dermal	25 mg/kg	Systemic chronic effects	
Consumers	Inhalation	10 mg/m <sup>3</sup>	Local acute effects	

###### PNEC

Propylene carbonate

Route of exposure	Value	Determining method
Drinking water	0.9 mg/l	
Seawater	0.09 mg/l	
Soil (agricultural)	0.81 mg/kg	
Water (intermittent release)	9 mg/l	
Microorganisms in wastewater treatment plants	7400 mg/l	
Freshwater sediment	0.83 mg/kg	
Sea sediments	0.083 mg/kg	

##### 8.2. Exposure controls

Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

###### Eye/face protection

Protective goggles or face shield (based on the nature of the work performed).

###### Skin protection

Hand protection: Protective gloves resistant to the product (nitrile rubber). Contaminated skin should be washed thoroughly.

###### Respiratory protection

It is not needed.

###### Thermal hazard

Not available.

###### Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

#### SECTION 9: Physical and chemical properties

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

Appearance	liquid
Physical state	liquid at 20°C
color	colourless
Odour	fruity
Odour threshold	data not available
pH	7 (200 g/l% solution at 20°C)
Melting point/freezing point	-49 °C
Initial boiling point and boiling range	243 °C
Flash point	116 °C
Evaporation rate	data not available

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Flammability (solid, gas)		data not available	
Upper/lower flammability or explosive limits			
flammability limits			
bottom		1.8 %	
upper		14.3 %	
explosive limits		data not available	
Vapour pressure		data not available	
Vapour density		data not available	
Relative density		data not available	
Solubility(ies)			
solubility in water		data not available	
solubility in fats		data not available	
Partition coefficient: n-octanol/water		data not available	
Auto-ignition temperature		data not available	
Decomposition temperature		data not available	
Viscosity		data not available	
Explosive properties		data not available	
Oxidising properties		data not available	
<b>9.2. Other information</b>			
Density		1.2 g/cm <sup>3</sup>	
ignition temperature		data not available	

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The substance is non-flammable.

### 10.2. Chemical stability

The product is stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Unknown.

### 10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

### 10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents.

### 10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

No toxicological data is available for the substance.

#### Acute toxicity

Based on available data the classification criteria are not met.

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Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex
Oral	LD50	OECD 401	>5000 mg/kg		Rat ( <i>Rattus norvegicus</i> )	
Oral	LD50		>2000 mg/kg		Rabbit	

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#### Skin corrosion/irritation

Based on available data the classification criteria are not met.

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Route of exposure	Result	Method	Time of exposure	Species
	Not irritating	OECD 404		Rabbit

#### Serious eye damage/irritation

Causes serious eye irritation.

Propylene carbonate

Route of exposure	Result	Method	Time of exposure	Species
Eye	Irritating	OECD 405		Rabbit

#### Respiratory or skin sensitisation

Based on available data the classification criteria are not met.

#### Germ cell mutagenicity

Based on available data the classification criteria are not met.

#### Carcinogenicity

Based on available data the classification criteria are not met.

#### Reproductive toxicity

Based on available data the classification criteria are not met.

#### Toxicity for specific target organ - single exposure

Based on available data the classification criteria are not met.

#### Toxicity for specific target organ - repeated exposure

Based on available data the classification criteria are not met.

#### Aspiration hazard

Based on available data the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Acute toxicity

Based on available data the classification criteria are not met.

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Parameter	Method	Value	Time of exposure	Species	Environment
LC50	OECD 203	>1000 mg/l	96 hour	Fishes (Cyprinus carpio)	
EC50	OECD 202	>1000 mg/l	48 hour	Daphnia (Daphnia magna)	
NOEC		2200 mg/l	96 hour	Fishes (Leuciscus idus)	

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Parameter	Method	Value	Time of exposure	Species	Environment
EC50	OECD 201	>900 mg/l	72 hour	Algae (Desmodesmus subspicatus)	
EC50		>10000 mg/l	17 hour	Bacteria (Pseudomonas putida)	

#### 12.2. Persistence and degradability

The substance is biodegradable.

#### 12.3. Bioaccumulative potential

Not available.

#### 12.4. Mobility in soil

Not available.

#### 12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

#### 12.6. Other adverse effects

Not available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

#### Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

### SECTION 14: Transport information

#### 14.1. UN number

Not subject to ADR

#### 14.2. UN proper shipping name

not available

#### 14.3. Transport hazard class(es)

not available

#### 14.4. Packing group

not available

#### 14.5. Environmental hazards

not available

#### 14.6. Special precautions for user

not available

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

not available

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#### SECTION 15: Regulatory information

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

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 as amended. Environmental Protection Act 1990 as amended. Clean Air Act 1993 as amended. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.

##### 15.2. Chemical safety assessment

not available

#### SECTION 16: Other information

##### A list of standard risk phrases used in the safety data sheet

H319 Causes serious eye irritation.

##### Guidelines for safe handling used in the safety data sheet

P280 Wear eye 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.

##### Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

##### Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL	Derived no-effect level
EC	Identification code for each substance listed in EINECS
EC50	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC50	Concentration causing 50% blockade
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC50	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD50	Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC	Lowest observed adverse effect concentration
LOAEL	Lowest observed adverse effect level
log Kow	Octanol-water partition coefficient
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEC	No observed adverse effect concentration



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NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
NOEL	No observed effect level
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted no-effect concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative

Eye Irrit. Eye irritation

#### Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

#### Recommended restrictions of use

not available

#### Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended.  
REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

#### More information

Classification procedure - calculation method.

#### Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.