

Propylene Carbonate 108-32-7 MSDS

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

Product identifiers

Product name : Propylene carbonate

REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

CAS-No. : 108-32-7

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Eye irritation (Category 2), H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Xi Irritant R36

For the full text of the R-phrases mentioned in this Section, see Section 16.

Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word Warning

Hazard statement(s)

H319 Causes serious eye irritation.

Precautionary statement(s)

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

Remove

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

Supplemental Hazard none

Statements

Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

Substances

Synonyms : 1,2-Propanediol cyclic carbonate

4-Methyl-1,3-dioxolan-2-one

Formula : C₄H₆O₃

Molecular weight : 102,09 g/mol
CAS-No. : 108-32-7
EC-No. : 203-572-1
Index-No. : 607-194-00-1

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
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Propylene carbonate

CAS-No.	108-32-7	Eye Irrit. 2; H319	<= 100 %
EC-No.	203-572-1		
Index-No.	607-194-00-1		

Hazardous ingredients according to Directive 1999/45/EC

Component	Classification	Concentration
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Propylene carbonate

CAS-No.	108-32-7	Xi, R36	<= 100 %
EC-No.	203-572-1		
Index-No.	607-194-00-1		

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Moisture sensitive.

Storage class (TRGS 510): Combustible liquids

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and

at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique

(without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nature latex/chloroprene

Minimum layer thickness: 0,6 mm

Break through time: 480 min

Material tested:Lapren® (KCL 706 / Z677558, Size M)

Splash contact

Material: Nature latex/chloroprene

Minimum layer thickness: 0,6 mm

Break through time: 480 min

Material tested:Lapren® (KCL 706 / Z677558, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374,

contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air

respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

a) Appearance Form: liquid, clear

Colour: colourless

b) Odour like fruit

c) Odour Threshold No data available

d) pH 7 at 200 g/l at 20 °C

e) Melting point/freezing Melting point/range: -55 °C - lit. point

- f) Initial boiling point and 240 °C - lit.
boiling range
- g) Flash point 116 °C - closed cup - DIN 51758
- h) Evaporation rate No data available
- i) Flammability (solid, gas) No data available
- j) Upper/lower Upper explosion limit: 14,3 %(V)
flammability or Lower explosion limit: 1,8 %(V)
explosive limits
- k) Vapour pressure 0,06 hPa at 25 °C
- l) Vapour density No data available
- m) Relative density 1,189 g/mL at 25 °C
- n) Water solubility 175 g/l at 25 °C at 1.013 hPa - soluble
- o) Partition coefficient: n- log Pow: -0,409
octanol/water
- p) Auto-ignition No data available
temperature
- q) Decomposition 350 °C, 240 KJ/kg -
temperature
- r) Viscosity No data available
- s) Explosive properties Not explosive
- t) Oxidizing properties No data available

Other safety information

Dissociation constant 3,92 at 20 °C

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Acids, Bases

Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - > 5.000 mg/kg

(OECD Test Guideline 401)

LD50 Dermal - Rabbit - > 2.000 mg/kg

(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

(Draize Test)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irritating to eyes.

(OECD Test Guideline 405)

Respiratory or skin sensitisation

Patch test on human volunteers did not demonstrate sensitisation properties.

Germ cell mutagenicity

Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Animal testing did not show

any mutagenic effects.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Did not show teratogenic effects in animal experiments.

Animal testing did not show any effects on fertility.

Specific target organ toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

No data available

Additional Information

RTECS: FF9650000

Nausea, Headache, Vomiting, Central nervous system depression, To the best of our knowledge, the

chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

Toxicity

Toxicity to fish semi-static test LC50 - Cyprinus carpio (Carp) - > 1.000 mg/l - 96 h

Toxicity to daphnia and static test EC50 - Daphnia magna (Water flea) - > 1.000 mg/l - 48 h

other aquatic (OECD Test Guideline 202)

invertebrates

Toxicity to algae EC50 - Desmodesmus subspicatus (green algae) - > 900 mg/l - 72 h

(OECD Test Guideline 201)

Toxicity to bacteria EC10 - Pseudomonas putida - 7.400 mg/l - 16 h

(DIN 38 412 Part 8)

Persistence and degradability

Biodegradability Result: > 90 % - Readily biodegradable.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: - IMDG: - IATA: -

UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

Packaging group

ADR/RID: - IMDG: - IATA: -

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

No data available

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

Eye Irrit. Eye irritation

H319 Causes serious eye irritation.

Full text of R-phrases referred to under sections 2 and 3

Xi Irritant

R36 Irritating to eyes.

Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be

used only as a guide. The information in this document is based on the present state of our knowledge

and is applicable to the product with regard to appropriate safety precautions. It does not represent any

guarantee of the properties of the product. Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.