

Propylene carbonate

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)
Issue date: 9/19/2025 Revision date: 9/19/2025 Version: 1.0



SECTION 1: Identification

1.1. GHS Product identifier

Product form	: Substance
Substance name	: Propylene carbonate
EC-No.	: 203-572-1
EC Index-No.	: 607-194-00-1
CAS-No.	: 108-32-7
Formula	: C ₄ H ₆ O ₃

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use	: Industrial use
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1.4. Supplier's details

Supplier

Shinghwa Ampere Technology (Dongying) Co., Ltd.
No. 198 Tongxing Road, Kenli District, Dongying City, Shandong, China
257000
T 0546-2169114 - F 0546-2169181

1.5. Emergency phone number

Emergency number	: 0546-2169111
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SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Serious eye damage/eye irritation, Category 2	H319
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Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects	: Causes serious eye irritation.
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2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)	:
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Signal word (GHS UN)	: Warning
Hazard statements (GHS UN)	: H319 - Causes serious eye irritation
Precautionary statements (GHS UN)	: P264+P265 - Wash hands thoroughly after handling. Do not touch eyes. P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing 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+P317 - If eye irritation persists: Get medical help.

2.3. Other hazards which do not result in classification

No additional information available

Propylene carbonate

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)

SECTION 3: Composition/Information on ingredients

3.1. Substances

Product identifiers: See section 1.1

Name	Product identifier	%	Classification according to the United Nations GHS
Propylene carbonate	CAS-No.: 108-32-7	≥ 99.9	Serious eye damage/eye irritation, Category 2, H319

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: None under normal conditions.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon oxides (CO, CO ₂).

5.3. Special protective actions for fire-fighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Move containers from fire area if it can be done without personal risk. Collect contaminated firefighting water separately, must not be discharged into the drains.

Propylene carbonate

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)



SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
Personal Precautions, Protective Equipment and Emergency Procedures	: Avoid contact with skin and eyes. Evacuate unnecessary personnel.
Prevention Measures for Secondary Accidents	: According to the area of influence of vapor diffusion, the warning area is demarcated, and unrelated personnel are evacuated to the safety zone from the crosswind or upwind direction.
6.1.1. For non-emergency personnel	
Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Only qualified personnel equipped with suitable protective equipment may intervene.
6.1.2. For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

For containment	: Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
Methods for cleaning up	: Take up liquid spill into absorbent material. Clean contaminated surfaces with an excess of water.
Other information	: Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.
Hygiene measures	: Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Handle in accordance with good industrial hygiene and safety practice.
Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Store in a dry place. Store in a closed container. Observe the label precautions. Containers which are opened should be properly resealed and kept upright to prevent leakage.
Storage area	: Keep away from food, drink and animal feeding stuffs.
Incompatible materials	: Oxidizing agent. Strong acids.
Heat and ignition sources	: Keep away from open flames, hot surfaces and sources of ignition.
Packaging materials	: Store always product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

Propylene carbonate

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)



8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Transparent
Colour	: Colourless.
Odour	: Odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: -48.8 °C
Boiling point	: 242 °C
Flammability	: Non flammable.
Lower explosion limit	: 1.8 vol %
Upper explosion limit	: 14.3 vol %
Flash point	: 116 °C
Auto-ignition temperature	: 430 °C
Decomposition temperature	: 283.85 °C
pH	: 6 – 7.5
pH solution	: Not available
Viscosity, kinematic (calculated value) (40 °C)	: 2.3 mm²/s
Log Pow	: -0.41 (20 °C)
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 0.06 hPa (25 °C)
Vapour pressure at 50 °C	: Not available
Density	: 1.2 g/cm³ (20 °C)
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Solubility	: Propylene carbonate is soluble in water, forming a transparent or light yellow liquid with a relatively high solubility. It can be mixed with various organic solvents, including ether, acetone, benzene, chloroform, vinyl acetate, carbon tetrachloride, and alcohols (such as methanol and ethanol). Water: 200 g/l (25 °C)
Viscosity, dynamic	: 2.76 mPa·s (20 °C)
Particle size	: Not applicable

Propylene carbonate

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)



9.2. Data relevant with regard to physical hazard classes (supplemental)

Explosive properties	: Product is not explosive
Oxidising properties	: Non oxidizing
Critical temperature	: 274.85 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

See Section 7.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Based on available data, the classification criteria are not met
Acute toxicity (dermal)	: Based on available data, the classification criteria are not met
Acute toxicity (inhalation)	: Based on available data, the classification criteria are not met

Propylene carbonate (108-32-7)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation	: Based on available data, the classification criteria are not met pH: 6 – 7.5
Serious eye damage/irritation	: Causes serious eye irritation. pH: 6 – 7.5
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
STOT-single exposure	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Based on available data, the classification criteria are not met
Aspiration hazard	: Based on available data, the classification criteria are not met

Propylene carbonate (108-32-7)

Viscosity, kinematic	2.3 mm²/s
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Propylene carbonate

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)



SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Based on available data, the classification criteria are not met
Hazardous to the aquatic environment, long-term (chronic)	: Based on available data, the classification criteria are not met

Propylene carbonate (108-32-7)	
LC50 fish 1	> 1000 mg/l
EC50 Daphnia 1	> 1000 mg/l
EC50 72h - Algae [1]	> 929 mg/l

12.2. Persistence and degradability

Propylene carbonate (108-32-7)	
Persistence and degradability	Readily biodegradable

12.3. Bioaccumulative potential

Propylene carbonate (108-32-7)	
Log Pow	-0.41 (20°C)
Bioaccumulative potential	No additional information available

12.4. Mobility in soil

Propylene carbonate (108-32-7)	
Mobility in soil	No additional information available

12.5. Other adverse effects

Ozone	: Based on available data, the classification criteria are not met
Other adverse effects	: No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

In accordance with UN RTDG / IMDG / IATA

UN RTDG	IMDG	IATA
14.1. UN number		
Not applicable	Not applicable	Not applicable
14.2. UN Proper Shipping Name		
Not applicable	Not applicable	Not applicable

Propylene carbonate

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)



UN RTDG	IMDG	IATA
14.3. Transport hazard class(es)		
Not applicable	Not applicable	Not applicable
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Not applicable	Not applicable	Not applicable
No supplementary information available		

14.6. Special precautions for user

UN RTDG
Not applicable

IMDG
Not applicable

IATA
Not applicable

14.7. Transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

SECTION 16: Other information

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Full text of H-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation

Safety Data Sheet (SDS), UN

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.