Safety Data Sheet

1. Chemical product and company identification

Product name : Propylene carbonate

Company information

Name of manufacturer : KANTO CHEMICAL CO., INC.

Address : 2-1, Nihonbashi, Muromachi 2-Chome, Chuo-Ku, Tokyo, 103-0022, JP

Name of section : Business Administration Department, Reagent Division

Telephone number : +81-3-6214-1090Facsimile number : +81-3-3241-1047Mail address : BC32@kanto.co.jp

Reference No : 32455

Recommended use : For research use only

Restrictions on use : Seek expert judgment when using the product for applications other

than those recommended.

2. Hazards identification

GHS classification

Health hazards

Serious eye damage/eye

Category 2A

irritation

Hazard pictograms



Signal word : Warning

Hazard statements : Causes serious eye irritation

Precautionary statements

Prevention : Wash hands, forearms and face thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face

protection.

Response : IF IN EYES: 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.

3. Composition/information on ingredients

Distinction of substance or

mixture

: Substance

Synonyms : PC, 4-Methyl-1, 3-dioxolane-2-one

Chemical name	Concentration (%)	Formula	TSCA	EC-No.	CAS RN
Propylene carbonate	≥ 98	C4H6O3	Listed	203-572-1	108-32-7

4. First aid measures

First aid measures

First-aid measures after

inhalation

: Remove the victim to fresh air, and make $\mathop{\text{\rm him}}\nolimits$ blow his nose and

gargle.

First-aid measures after skin

contact

: Wash the affected areas under running water.

 $First-aid\ measures\ after\ eye$

contact

: Wash the affected areas under running water for at least 15

minutes. If necessary, get medical treatment.

First-aid measures after

ingestion

: Give the victim water. If necessary, get medical attention.

Personal Protection in First

Aid and Measures

Rescuers should wear proper protective equipment like rubber

gloves, goggles.

5. Fire fighting measures

Suitable extinguishing media

: Dry chemical powder, carbon dioxide, dry sand, foam

Unsuitable extinguishing media

: Water spray

Firefighting instructions

Move containers from fire area if it can be done without risk, if

not possible, apply water from a safe distance to cool and

protect surrounding area. Fight fire from windward.

Dry chemical powder, carbon dioxide or dry sand should be used for small fires. Foam extinguisher is effective for a large scale

fire.

Personal protection (Emergency

response)

Firefighters should wear protective equipment.

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures

General measures

: Wear proper protective equipment and avoid contact with skin and inhalation of vapor. Conduct operations from upwind and evacuate people downwind. Keep away personnel except for authorized ones

from spillage area by stretching ropes.

flowing of spillage to rivers.

Environmental precautions

Environmental precautions

: Attention should be given to avoid damage to the environment by

Methods and Equipment for Containment and Cleaning up

For containment : Absorb spill with inert material (e.g, diatomaceous earth,

sand) and flush spillage area with copious amounts of water.

Prevention Measures for Secondary Accidents Remove nearby sources of ignition and prepare extinguishing media.

7. Handling and storage

Handling



Technical measures : Wear proper protective equipment to avoid contact with skin or

inhalation of vapor. Pay attention to fire.

Ventilate well at working places.

Precautions for safe handling : Avoid formation of vapor and aerosols.

Do not allow contact with oxidizing substances.

Storage

Storage conditions : Store in a dark, cool place and tightly closed.

Material used in : Glass, fluorine resin, stainless steel. packaging/containers : Do not use polyethylene, polypropylene.

8. Exposure controls / Personal protection equipment

ACGIH TWA Not established

Appropriate engineering

controls

: Use with an enclosed system or a local exhaust ventilation.

Protective equipment

Respiratory protection : If necessary, wear chemical cartridge respirator with an organic

vapor cartage

Hand protection : Impervious protective gloves

Eye protection : Safety goggles

Skin and body protection : Protective clothing, protective boots

9. Physical and chemical properties

Physical state : Liquid
Color : Colorless.
Odor : Odorless

pH : No data available

Melting point : -48.8 $^{\circ}$ C

Freezing point : No data available

Boiling point : 242 $^{\circ}$ C Flash point : 135 $^{\circ}$ C

Auto-ignition temperature : No data available
Decomposition temperature : No data available

Flammability : Flammable Vapor pressure : 6 Pa (25%)

Relative density : No data available

Density : $1.201 - 1.208 \text{ g/cm}^3 (20^{\circ}\text{C})$

Relative gas density : No data available

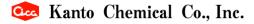
Solubility : Organic solvents: Readily soluble in ethanol, ether, acetone,

benzene.

Partition coefficient n-

octanol/water (log Pow)

Explosive limits (vol %) : No data available Viscosity, kinematic : $2.1~\rm{mm}^2/\rm{s}$ (25°C) Particle characteristics : No data available



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10. Stability and reactivity

Reactivity : May react with oxidizing substances.

Chemical stability : Stable under normal conditions.

Possibility of hazardous

reactions

: Stable under normal conditions of use.

Conditions to avoid : Light, heat.

Incompatible materials : Oxidizing substances.
Hazardous decomposition : Carbon monoxide.

products

11. Toxicological information

Acute toxicity (oral) : No classification

 $rat~LD50\!\ge\!29000~mg/kg$

Acute toxicity (dermal) : No classification

 $rabbit \ LD50>20000 \ mg/kg$

Acute toxicity (inhalation) : No classification (gas)

Classification not possible (vapor)
Classification not possible (dust, mist)

Skin corrosion/irritation : No classification

The classification is based on descriptions that the substance was found to be a slight irritant in rabbit tests and it caused no irritation in other rabbit tests (OECD Guidelines 404). Therefore,

it was classified as "No classification".

Serious eye damage/irritation : Causes serious eye irritation

The substance was found to be a moderate irritant in rabbit tests. In other rabbit tests (OECD Guidelines 405), its scores for corneal

clouding and conjunctival erythema were 1.72 and 2.67, respectively, leading to the conclusion that the substance is

irritating. Therefore, it was classified as category 2A.

Respiratory sensitization : Classification not possible Skin sensitization : Classification not possible Germ cell mutagenicity : Classification not possible

Regarding in vitro tests, Ames tests and chromosomal aberration

tests both yielded negative results.

Carcinogenicity : Classification not possible
Reproductive toxicity : Classification not possible
STOT-single exposure : Classification not possible
STOT-repeated exposure : Classification not possible
Aspiration hazard : Classification not possible

12. Ecological information

Ecotoxicity

Aquatic acute : No classification

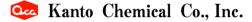
Scenedesmus subspicatus EC50>900 mg/L/72h

Aquatic chronic : No classification

Persistence and degradability

Readily biodegradable

BOD : 79%



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Bioaccumulative potential

Low bioconcentration log Pow : -0.41

Mobility in soil

No additional information available

Hazardous to the ozone layer

0zone : Classification not possible

13. Disposal considerations

Ecological waste information Burn in a chemical incinerator equipped with an afterburner

and a scrubber. Or entrust approved waste disposal companies

with the disposal.

Contaminated container and

packaging

: In case of disposal of empty bottles, dispose bottles after

removing the content thoroughly.

14. Transport information

International Regulations

Transport by sea(IMDG)

UN-No. (IMDG) Not applicable Proper Shipping Name (IMDG) Not applicable Packing group (IMDG) Not applicable Transport hazard class(es) Not applicable

(IMDG)

Air transport(IATA)

UN-No. (IATA) Not applicable Proper Shipping Name (IATA) Not applicable Packing group (IATA) Not applicable Transport hazard class(es) Not applicable

(IATA)

Marine pollutant : Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Pollutant category : 7

15. Regulatory information

Regulatory information with regard to this substance in your country or region should be examined by your own responsibility.

16. Other information

Data sources : NITE Chemical Risk Information Platform (NITE-CHRIP), National

Institute of Technology and Evaluation.

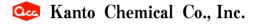
Dictionary of Organic Compounds, The society of Synthetic

Organic Chemistry, Kodansha Ltd. (1985) .

Solvents Handbook, T, Asahara el, Kodansha Scientific Ltd.

(1976).

The information contained herein is based on several references and the present state of our knowledge. However the SDS does not always cover all information about the product, handle the product carefully. The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements. The information herein is only provision of information, and



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it does not represent a guarantee the properties of the product. The Safety Data Sheet(SDS) is prepared based on JIS Z7253.