

Safety Data Sheet

1. Product and company identification

Product name : p-Cymene
Name of manufacturer : KANTO CHEMICAL CO., INC.
Address : 2-1, Nihonbashi, Muromachi 2-Chome, Chuo-Ku, Tokyo, 103-0022, Japan
Name of section : Reagent division, catalog and products information section
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SDS No. : 07569

2. Summary of danger and Hazard

GHS classification

Physical and chemical hazard

Flammable liquids : Category 3
Pyrophoric liquids : Out of category

Human health hazard

Acute toxicity(oral) : Out of category
Specific target organ systemic toxicity(single exposure)
: Category 3 (anesthetic action)

Environmental hazard

Hazardous to the aquatic environment-acute hazard
: Category 2
Hazardous to the aquatic environment-chronic hazard
: Category 3

Pictogram or symbol



Signal word : Warning
Hazard statement : Flammable liquid and vapor
May cause drowsiness and dizziness
Toxic to aquatic life
Harmful to aquatic life with long lasting effects

Cautions

Safety measurements : Keep away from ignition sources such as heat, sparks, or open flame.
Keep containers tightly closed.
Ground container and receiving equipment in case of transport and stirring.
Use explosion-proof apparatus.
Use only non-sparking tools.
Avoid breathing dust, mist, and vapor.

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

Protection for firefighters

: Firefighters should wear protective equipment.

6. Accidental release measures

Cautions for personnel : Wear proper protective equipment and avoid contact with skin and inhalation of vapor. Conduct operations from upwind and evacuate people downwind. Remove all sources of ignition. Keep away personnel except for authorized ones from spillage area by stretching ropes.

Cautions for environment : Attention should be given to avoid damage to the environment by flowing of spillage to rivers.

Removal measure : Absorb spill with inert material (e.g., diatomaceous earth, sand) and flush spillage area with copious amounts of water.

Prevention of second accident

: Remove nearby sources of ignition and prepare extinguishing media.

7. Cautions of handling and storage

Handling

Engineering measures : Wear proper protective equipment to avoid contact with skin or inhalation of vapor. Pay attention to fire.

Cautions for safety handling

: Use with an enclosed system or a local exhaust ventilation. Use in well-ventilated areas.

Storage

Adequate storage condition

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

Safety adequate container materials

: Glass, fluorine resin, stainless steel

8. Exposure control/Personal protection

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

Control parameters

ACGIH(2015) : Not established

Protective equipment

Respiration protective equipment

: If necessary, wear chemical cartridge respirator with an organic vapor cartage

Hands protective equipment

: Organic solvents resistant gloves

Eyes protective equipment

: Safety goggles

Skin and body protective equipment

: Protective clothing, protective boots

9. Physical and chemical properties

Appearance : Liquid

Color : Colorless



Odor : Characteristic odor
pH : Not available
Boiling point : 177.1°C
Melting point : -67.9°C
Flash point : 47.2°C
Auto-ignition point : 436.1°C
Explosion characteristics
Explosion limit : upper : 5.6vol% lower : 0.7vol%
Vapor pressure : 2.0hPa (25°C)
Vapor density : 4.6
Density : 0.857g/cm³ (20°C)
Solubility
Solubility in solvents : Water : 0.034%
Organic solvents : Soluble in ethanol, diethyl ether, acetone, chloroform.
log Pow : 4.1

10. Stability and reactivity

Stability : Stable under normal conditions.
Reactivity : May react with oxidizing substances.
Incompatible conditions : Light, heat
Incompatible materials : Oxidizing substances
Hazardous decomposition products
: Carbon monoxide

11. Toxicological information

Acute toxicity : Oral : Out of category
Dermal : Not possible to classify because of insufficient data.
Inhalation(vapor) : Not possible to classify because of insufficient data.
Inhalation(dust, mist) : Not possible to classify because of insufficient data.
rat oral LD50=4750mg/kg
Skin corrosion/irritation : Not possible to classify because of insufficient data.
Serious eye damage/eye irritation
: Not possible to classify because of insufficient data.
Respiratory sensitization or Skin sensitization
: Respiratory sensitization : Not possible to classify because of insufficient data.
Skin sensitization : Not possible to classify because of insufficient data.
Mutagenicity : Not possible to classify because of insufficient data.
There is no in vivo data. As for in vitro, there is negative data on reverse mutation test in bacteria.

The substance is recognized to have mutagenicity by the Ministry of Health, Labor and Welfare.

Carcinogenic effects : Not possible to classify because of insufficient data

Effects on the reproductive system

: Not possible to classify because of insufficient data.

Specific target organ systemic toxicity single exposure

: May cause drowsiness and dizziness(category 3)

Human studies have shown that oral ingestion of the substance caused headache, nausea, and vomiting. Animal studies have shown that in single oral studies in rats, lethal dose is 3,200mg/kg, which is higher than the guidance value range of category 2, signs of sedation, tremors, lethargy, and muscular weakness were observed prior to death, and necropsy revealed pulmonary congestion and hemorrhage, pulmonary emphysema, gastric and small intestinal hemorrhage, and hepatic congestion. In rats exposed by inhalation to saturated vapor for 5 hours (higher than the guidance value range of category 2), loss of balance, salivation, tremors, clonic convulsion, and staggering gaits were observed, but disappeared on the following day. Thus, it was classified into category 3 (anesthetic actions).

Specific target organ systemic toxicity repeated exposure

: Not possible to classify because of insufficient data.

Aspiration hazard

: Not possible to classify because of insufficient data.

12. Ecological information

Ecotoxicity

Fish toxicity

: Toxic to aquatic life(category 2)

Harmful to aquatic life with long lasting effects(category 3)

Daphnia magna EC50=1.9mg/L/48H

Daphnia magna NOEC=0.46mg/L/21-day

Persistence and degradability

: High biodegradability

88% by BOD

Bioaccumulative potential : It is expected to have bioconcentration.

Mobility in soil : It is expected to have low mobility in soil (Koc:1120).

13. Disposal consideration

Residual disposal

: Burn in a chemical incinerator equipped with an afterburner and a scrubber. Or entrust approved waste disposal companies with the disposal.

Containers

: In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

14. Transport information

UN class

: Class 3(Flammable liquids) P. G. III

UN number

: 2046

Marine regulation information

UN No.

: 2046

Proper shipping name

: CYMENES

Class

: 3

Sub risk

: -



Packing group : III
Marine pollutant : P
Aviation regulation information
UN No. : 2046
Proper shipping name : Cymenes
Class : 3
Sub risk : -
Packing group : III

15. Regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other information

References Dictionary of Organic Compounds, The society of Synthetic Organic Chemistry, Kodansha Ltd. (1985)
Dangerous Properties of Industrial Materials, 6th ed. N. I. Sax Van Nostrand Reinhold Company (1984)
Handbook of 16817 Chemical Products, The Chemical Daily Co. (2017)

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 it does not represent a guarantee the properties of the product. The Safety Data Sheet (SDS) is prepared based on JIS Z7253, and it has the same required elements on the Material Safety Data Sheet (MSDS) which is prepared based on JIS Z7250:2010.