


Section 1. Product and Company Identification

Product Name Diethyl Carbonate
CAS Number 105-58-8

Parchem - fine & specialty chemicals

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EMERGENCY RESPONSE NUMBER
CHEMTEL

Toll Free US & Canada: 1 (800) 255-3924

All other Origins: 1 (813) 248-0585

Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture

Classification: This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids: Category 3

GHS Label Elements

Pictograms:



Signal word: WARNING

Hazard and precautionary statements

Hazard Statements

Flammable liquid and vapor

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking

Keep container tightly closed

Ground/bond container and receiving equipment

Use explosion-proof electrical/ventilating/lighting/equipment

Use only non-sparking tools

Take precautionary measures against static discharge

Wear protective gloves/protective clothing/eye protection/face protection

Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

Fire

In case of fire: Use CO₂, dry chemical, or foam for extinction

Storage

Store in a well-ventilated place. Keep cool

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC): None identified

Section 3. Composition / Information on Ingredients

Common Name Diethyl Carbonate
Synonym(s) Ethyl carbonate
Formula C₅H₁₀O₃
CAS Number 105-58-8

COMPONENT	CAS NUMBER	CONCENTRATION
Diethyl Carbonate	105-58-8	> 95%

Section 4. First Aid Measures

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact: Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.

Ingestion: Do not induce vomiting. Obtain medical attention.

Most important symptoms/effects: Breathing difficulties. . Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

Notes to Physician Treat symptomatically

Section 5. Firefighting Measures

Suitable Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Cool closed containers exposed to fire with water spray.

Unsuitable Extinguishing Media: No information available

Flash Point: 33°C / 91.4°F

Method: No information available

Autoignition Temperature 445°C / 833°F



Explosion Limits

Upper: No data available

Lower: No data available

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge: No information available

Specific Hazards Arising from the Chemical: Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated.

Hazardous Combustion Products: Carbon monoxide (CO) Carbon dioxide (CO₂)

Protective Equipment and Precautions for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health: 1

Flammability: 3

Instability: 1

Physical hazards: N/A

Section 6. Accidental Release Measures

Personal Precautions: Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges.

Environmental Precautions: Should not be released into the environment. See Section 12 for additional ecological information.

Methods for Containment and Clean Up: Remove all sources of ignition. Soak up with inert absorbent material. Use spark-proof tools and explosion-proof equipment. Keep in suitable, closed containers for disposal. Take precautionary measures against static discharges.

Section 7. Handling and Storage

Handling: Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Use explosion-proof equipment. Take precautionary measures against static discharges.

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place. Flammables area. Keep away from heat and sources of ignition.

Section 8. Exposure Controls / Personal Protection

Exposure Guidelines: This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Engineering Measures: Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment

Personal Protective Equipment

Eye/face Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection: No protective equipment is needed under normal use conditions.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice

Section 9. Physical and Chemical Properties

Appearance: Colorless liquid

Odor: Ether, sweet

Odor Threshold: No information available

pH: 6.31 g/l aq. sol

Melting Point/Range: -43°C / -45.4°F

Boiling Point/Range: 126 - 128°C / 258.8 - 262.4°F

Flash Point: 33°C / 91.4°F

Evaporation Rate: No information available

Flammability (solid, gas): Not applicable

Flammability or explosive limits

Upper: No data available

Lower: No data available

Vapor Pressure: 11 mbar @ 20°C

Vapor Density: 4.07

Relative Density: 0.975

Solubility: No information available

Partition coefficient (n-octanol/water): No data available

Auto-ignition Temperature: 445°C / 833°F

Decomposition Temperature: > 320°C

Viscosity: 0.827 mPa*s at 20°C

Molecular Weight: 118.13

Section 10. Stability and Reactivity

Reactive Hazard: None known, based on information available

Stability: Moisture sensitive.

Conditions to Avoid: Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition. Exposure to moist air or water.

Incompatible Materials: Strong oxidizing agents, Strong bases, Strong acids, Reducing agents

Hazardous Decomposition Products: Carbon monoxide (CO), Carbon dioxide (CO₂)

Hazardous Polymerization: Hazardous polymerization does not occur.

Hazardous Reactions: None under normal processing

Section 11. Toxicological Information

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Diethyl carbonate	> 15000 mg/kg (Rat)	Not listed	> 19.5 mg/L/4h (Rat)

Toxicologically Synergistic: No information available

Products Information

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation: No information available

Sensitization: No information available

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Diethyl carbonate	105-58-8	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects: No information available

Reproductive Effects: No information available.

Developmental Effects: No information available.

Teratogenicity: No information available.

STOT - single exposure: None known

STOT - repeated exposure: None known

Aspiration hazard: No information available

Symptoms / effects, both acute and delayed: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting



Endocrine Disruptor Information: No information available

Other Adverse Effects: The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information

Section 12. Ecological Information

Ecotoxicity: Do not empty into drains

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Diethyl carbonate	EC50 > 10,000 mg/L/3H	Leuciscus idus: LC50 >500 mg/L/48H	Not listed	Not listed

Persistence and Degradability: Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation: No information available.

Mobility: Will likely be mobile in the environment due to its water solubility

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

DOT

UN-No: UN2366

Proper Shipping Name: Diethyl Carbonate

Hazard Class: 3

Packing Group: III

TDG

UN-No: UN2366

Proper Shipping Name: Diethyl Carbonate

Hazard Class 3

Packing Group III

IATA

UN-No UN2366

Proper Shipping Name: Diethyl Carbonate

Hazard Class: 3

Packing Group: III



IMDG/IMO

UN-No: UN2366

Proper Shipping Name: Diethyl Carbonate

Hazard Class 3

Packing Group: III

Section 15. Regulatory Information

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Diethyl carbonate	X	X	-	203-311-1	-		X	X	X		

U.S. Federal Regulations

TSCA 12(b): Not applicable

SARA 313: Not applicable

SARA 311/312: Hazardous Categorization

Acute Health Hazard: No

Chronic Health Hazard: No

Fire Hazard: Yes

Sudden Release of Pressure Hazard: No

Reactive Hazard: No

Clean Water Act: Not applicable

Clean Air Act: Not applicable

OSHA (Occupational Safety and Health Administration): Not applicable

CERCLA: Not applicable

California Proposition 65: This product does not contain any Proposition 65 chemicals

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Diethyl carbonate	X	X	X	-	-

U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant: N

DOT Severe Marine Pollutant: N

U.S. Department of Homeland Security: This product does not contain any DHS chemicals.



Other International Regulations

Mexico - Grade: No information available

Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class: B2 Flammable liquid

Section 16. Other Information

Disclaimer: 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.

REVISION DATE: 11/9/2015

