

## 1. Product and Company Identification

www.rxmarine.com

Product Name DIETHYL CARBONATE

Part Number RXSOL-19-1124-025

### Company Details:

RX MARINE INTERNATIONAL  
105, A wing , BSEL , TECH PARK.  
VASHI ,NEW BOMBAY 400703 INDIA

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## 2. Composition / Information on ingredients

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Product name	CAS	EC number	Weight %	Formula
Diethyl carbonate	105-58-8	203-311-1	118,13 g/mol	C5H10O3

## 3. Hazards Identification

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Signal Word

Warning

Hazard Statements

H226 Flammable liquid and vapor

P280 Wear protective gloves.P305 + P351 + P338

Wear eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Precautionary statements - response

P210Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment P241Ground and bond container and receiving equipment P242 Use non-sparking tools P243 Take action to prevent static discharges.

Supplemental Hazard Statements

None

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

levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula : C5H10O3

Molecular weight : 118,13 g/mol

CAS-No. : 105-58-8

EC-No. : 203-311-1

No components need to be disclosed according to the applicable regulations.

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

#### SECTION 4: First aid measures

##### 4.1 Description of first-aid measures

###### General advice

## 4. First Aid Measures

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General advice	Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation: fresh air..
Eye Contact	After eye contact: rinse out with plenty of water. Remove contact lenses
Skin Contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.
Ingestion:	Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.
Notes to Physician	Treat symptomatically
If swallowed	After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.
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

## 5. Fire-fighting Measures

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Extinguishing media	Carbon dioxide (CO2) Foam Dry powder
Flammability	NA
Flash Point	NA
Suitable extinguishing media	Carbon dioxide (CO2) Foam Dry powder
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given
Special hazards arising from the substance or mixture	Carbon oxides Combustible. Vapors are heavier than air and may spread along floors Forms explosive mixtures with air at elevated temperatures
Further information	Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system
Hazardous combustion products	Fire may cause the evolution of Sulphur oxides, nitrogen oxides.
Advice for firefighters	In the event of fire, wear self-contained breathing apparatus
Protective Equipment	Use personal protective equipment.

## 6. Accidental Release Measures

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Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert For personal protection see section 8.
Environmental Precaution	Do not let product enter drains. Risk of explosion.
Methods and materials for	Cover drains. Collect, bind, and pump off spills. Observe possible

containment and cleaning	material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb® ). Dispose of properly. Clean up affected area.
Reference to other sections	For disposal see section 13.

## 7. Handling and Storage

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Advice on safe handling	Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge
Advice on protection against fire and explosion	Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge
Hygiene measures	Change contaminated clothing. Wash hands after working with substance For precautions see section 2.2
Precautions for safe handling	Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.
Conditions for safe storage, including any incompatibilities	Store in cool place. Keep container tightly closed in opened must be carefully resealed and kept upright to Storage class (TRGS 510): Flammable liquids.
Storage conditions	Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition Air sensitive.
Storage conditions	Tightly closed. Dry
Storage class	Storage class (TRGS 510): 3: Flammable liquids
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
Handling	Keep away from heat. Keep away from sources of ignition. Keep away from combustible material.. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing agents, combustible materials, organic materials, metals

## 8. Exposure controls and personal protection

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Occupational Exposure limit values	No data available
Biological limit values	No data available
Exposure controls	Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the riskelimination area
Engineering Control	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday
Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses
Body Protection	Flame retardant antistatic protective clothing
Skin protection	This recommendation applies only to the product stated in the safety data sheet supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell Internet: www.kcl.de). Splash contact Material: butyl-rubber Minimum layer thickness: 0,7 mm Break through time: 240 min Material tested: Butoject® (KCL 898)
Respiratory protection	Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds The entrepreneur has to ensure that maintenance,

Other Protection Measure  
Control of environmental exposure  
Thermal hazards

cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer These measures have to be properly documented

Handle in accordance with good industrial hygiene and safety practice.

Do not let product enter drains. Risk of explosion.

No data available



Gloves Suit

## 9. Physical and chemical properties

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Physical state	Clear, liquid
Colour	Colourless
Odour	Mild
Melting point/freezing point	Melting point/range: -43 °C - lit.
pH	No data available
Melting Point	Melting point/range: -78 °C - lit
Initial boiling point and boiling range	126 - 128 °C - lit..
Boiling Point	No data available
Flash Point	25 °C - closed cup
Evaporation Rate	Not Applicable
Flammability (solid, gas)	No data available
Explosive limits	No Data Available
Upper/lower flammability or explosive limits	No data available
Autoignition temperature	445 °Cat 1.013 hPa
Decomposition temperature	No data available
Vapour pressure	No Data Available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 0,837 mPa.s at 20 °C - OECD Test Guideline 114
Upper/lower flammability or explosive limits	Upper explosion limit: 11,0 %(V)  Lower explosion limit: 1,4 %(V)
Water solubility	18,8 g/l at 20 °C
Vapour pressure	79 hPa at 37,8 °C  13 hPa at 23,8 °C
Partition coefficient	log Pow: 0,354 at 20 °C - Bioaccumulation is not expected
Auto-ignition emperature	445 °C
Explosive properties	None
Solubility	DMSO (Slightly), Water (Slightly)
Ignition temperature	No information available.
Surface tension	31,92 mN/m at 0 °C
Relative vapor density	No data available
Density	0,975 g/cm3 at 25 °C - lit.
Relative vapor density	3,11 - (Air = 1.0)
Particle characteristics	No data available

## 10. Stability and reactivity

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Reactivity	Vapor/air-mixtures are explosive at intense warming
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature)
Possibility of hazardous reactions	Exothermic reaction with: Strong oxidizing agents strong reducing agents
Conditions to avoid	Avoid moisture. Heating
Incompatible materials	various plastics
Hazardous Polymerization	In the event of fire: see section 5

## 11. Toxicological information

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Acute toxicity	LD50 Oral - Rat - male - > 4.876 mg/kg  Remarks: (ECHA)  Inhalation: No data available  Dermal: No data available  No data available
Skin corrosion/irritation	Skin - Rabbit  Result: No skin irritation - 24 h  Remarks: (ECHA)
Serious eye damage/eye irritation	Eyes - Rabbit Result: No eye irritation-8 Days Remarks: (ECHA)
Respiratory or skin sensitization	Local lymph node assay (LLNA) - Mouse Result: Not a skin sensitizer. (OECD Test Guideline 429)
Serious eye damage/eye irritation	Eyes - Rabbit Result: No eye irritation - 8 Days Remarks: (ECHA)
Rout Of Entry	Inhalation. Ingestion.
Toxicity to Animal	WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE Acute oral toxicity (LD50): 689 mg/kg [Rat].
Toxic Effects on Human	May cause damage to the following organs: upper respiratory tract. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation (lung irritant, lung sensitizer).
Germ cell mutagenicity	Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: Micronucleus test Test system: Human lymphocytes Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 487 Result: positive Test Type: Micronucleus test Species: Mouse Cell type: Bone marrow Application Route: Intravenous Method: OECD Test Guideline 474 Result: negative  Test Type: Chromosome aberration test  Species: Mouse No data available No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Special Remarks on other Toxic Effects on Humans:	Acute Potential Health Effects: Skin: Causes skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Eyes: Causes eye irritation. Ingestion: Causes gastrointestinal (digestive) tract irritation with nausea, vomiting, and diarrhea. May be harmful if swallowed. Inhalation: Causes respiratory tract irritation. May cause chemical pneumonitis and pulmonary edema, inflammation, edema of bronchi and larynx. Chronic Potential Health Effects: Repeated or prolonged skin exposure may cause allergic reactions

## Additional Information

in sensitive individuals. Repeated or prolonged exposure by inhalation may affect respiration and metabolism.

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher RTECS: FG0980000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

## 12. Ecological information

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Persistence and degradability	Result: 75 % - Readily biodegradable (Regulation (EC) No. 440/2008, Annex, C.4-D)
Toxicity to daphnia and other aquatic invertebrates	Static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)
Bioaccumulative potential	No data available
Toxicity to daphnia and other aquatic invertebrates	Static test EC50 - Daphnia magna (Water flea) - 341.21 mg/l - 48 h (Pentan-1-ol)
Toxicity to algae	Static test ErC50 - Desmodesmus subspicatus (green algae) - > 100 mg/l - 72 h (OECD Test Guideline 201)static test NOEC - Desmodesmus subspicatus (green algae) - >= 100 mg/l - 72 h (OECD Test Guideline 201)
Eco Toxicity	Not Available
COD and BOD 5	Not Available
Products Biodegradation	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.
Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher
Assessment	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher
Other adverse effects	No data available

## 13. Disposal considerations

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Waste treatment methods	See <a href="http://www.retrologistik.com">www.retrologistik.com</a> for processes regarding the return of chemicals and containers, or contact us there if you have further questions
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## 14. Transport information

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UN number	ADR/RID: 2366 IMDG: 2366 IATA: 2366
UN proper shipping name	ADR/RID: DIETHYL CARBONATE IMDG: DIETHYL CARBONATE

Transport hazard class(es)	IATA: Diethyl carbonate ADR/RID: 3  IMDG: 3
Packaging group	IATA: 3 ADR/RID: II  IMDG: II
Environmental hazards	IATA: II ADR/RID: No  IMDG Marine pollutant: No
Special precautions for user	IATA: No
Further information	Tunnel restriction code : (D/E) No data available

## 15. Regulatory information

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Safety, health and environmental regulations/legislation specific for the substance or mixture	This material safety data sheet complies with the requirements of Regulation (EC) No.1907/2006.
Safety, health and environmental regulations specific for the product in question	European Inventory of Existing Commercial Chemical Substances (EINECS) -Listed. EC Inventory Listed. United States Toxic Substances Control Act (TSCA) Inventory- Listed. China Catalog of Hazardous chemicals 2015 Not- Listed. New Zealand Inventory of Chemicals (NZIoC) Listed. PICCS -Listed. Vietnam National Chemical Inventory -Listed. IECSC Listed. Korea Existing Chemicals List (KECL) -Listed.
Chemical Safety Assessment	For this product a chemical safety assessment was not carried out

## 16. Other information

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Other Information	<p>The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages.</p> <p><b>DISCLAIMER OF LIABILITY :</b> The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.</p>
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