

DIMETHYL CARBONATE

Part No. RXSOL-34-1124-250 — Generated 29 Sep 2026

1. Product and Company Identification

Product Name DIMETHYL CARBONATE

Part Number RXSOL-19-1124-026

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / information on ingredients

Synonyms	CAS	EC number	Weight %	Index-No.	Formula
DMC	616-38-6	210-478-4	90,08 g/mol	607-013-00-6	C3H6O3

3. Hazards Identification

Signal Word Danger

Hazard Statements H225 Highly 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
P233Keep container tightly closed P240 Ground and bond container and receiving equipment. P241Use explosion-proof electrical/ ventilating/ lighting/ equipment P242 Use non-sparking tools.P243Take action to prevent static discharges

Supplemental Hazard Statements
None

Other hazards
This substance/mixture contains no components considered to be either persistent,bioaccumulative and bioaccumulative and toxic (PBT),or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

4. First Aid Measures

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 delaye	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

Extinguishing media	Suitable extinguishing media
Flammability	NA
Flash Point	NA
Suitable extinguishing media	Water Foam Carbon dioxide (CO2) 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.Pay attention to flashback.Vapors are heavier than air and may spread along floors Development of hazardous combustion gases or vapours possible in the event of fire Forms explosive mixtures with air at ambient 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

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
Enviromental Precaution	Do not let product enter drains. Risk of explosion.
Methods and materials for containment and cleaning	Cover drains. Collect, bind, and pump off spills. Observe possible 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

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

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 risk elimination area
Engineering Control	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday at the end of workday. Page
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	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace type of protective equipment must be selected type of protective equipment must be selected according to the concentration and amount of the

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, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer These measures have to be properly documented
Other Protection Measure	Handle in accordance with good industrial hygiene and safety practice.
Control of environmental exposure	Do not let product enter drains. Risk of explosion.
Thermal hazards	No data available



Gloves



Suit

9. Physical and chemical properties

Physical state	Liquid
Colour	Colourless
Odour	No data available
Melting point/freezing point	Melting point/range: 2 - 4 °C - lit.
pH	No data available
Melting Point	Melting point/range: -78 °C - lit
Initial boiling point and boiling range	90 °C - lit.
Boiling Point	No data available
Flash Point	16 °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	No data available
Decomposition temperature	No data available
Vapour pressure	No Data Available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 0,585 mPa.s at 25 °C - OECD Test Guideline 114
Upper/lower flammability or explosive limits	Upper explosion limit: 12,87 %(V) Lower explosion limit: 4,22 %(V)
Water solubility	114,7 g/l at 20 °C - OECD Test Guideline 105- completely soluble
Vapour pressure	24 hPa at 21,1 °C

Partition coefficient	log Pow: 0,354 at 20 °C - Bioaccumulation is not expected
Auto-ignition emperature	300 °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	3,11 - (Air = 1.0)
Density	1,069 g/cm3 at 25 °C - lit
Relative vapor density	3,11 - (Air = 1.0)
Particle characteristics	No data available

10. Stability and reactivity

Reactivity	Vapors may form explosive mixture with air.
Stability	The product is chemically stable under standard ambient conditions (room temperature)
Possibility of hazardous reactions	Reducing agents Oxidizing agents Acids Bases potassium tert-butanolate
Conditions to avoid	Air Warming.
Incompatible materials	rubber, various plastics, Strong oxidizing agents
Hazardous Polymerization	In the event of fire: see section 5

11. Toxicological information

	LD50 Oral - Rat - male and female - > 5.000 mg/kg (OECD Test Guideline 401)
Acute toxicity	LC50 Inhalation - Rat - male and female - 4 h - > 5,36 mg/l - vapor (OECD Test Guideline 403) LD50 Dermal - Rabbit - male and female - > 2.000 mg/kg Remarks: (ECHA)
Skin corrosion/irritation	Skin - Rabbit(Pentan-1-ol) Result: Skin irritation - 4 h (OECD Test Guideline 404)
Serious eye damage/eye irritation	Eyes - Rabbit Result: No eye irritation Remarks: (ECHA)
Respiratory or skin sensitization	Freund's complete adjuvant test - Guinea pig Result: negative (OECD Test Guideline 406)
Serious eye damage/eye irritation	No data available
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).
	Test Type: Chromosome aberration test in vitro
	Test system: lymphocyte
	Metabolic activation: with and without metabolic activation
	Method: OECD Test Guideline 473
	Result: negative
	Test Type: Ames test
	Test system: Escherichia coli/Salmonella typhimurium
	Metabolic activation: with and without metabolic activation
	Result: negative
Germ cell mutagenicity	Remarks: (ECHA)
	Test Type: gene mutation test
	Test system: Chinese hamster lung cells
	Metabolic activation: with and without metabolic activation
	Method: OECD Test Guideline 476
	Result: negative
	Test Type: Chromosome aberration test
	Species: Mouse
	Application Route: Oral
	Method: OECD Test Guideline 483
Reproductive toxicity	No data available
	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 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: FG0450000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated
Additional Information	

12. Ecological information

Persistence and degradability aerobic - Exposure time 28 d Result: 86 % - Readily biodegradable (OECD Test Guideline 301C)

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 fish	static test LC50 - Danio rerio (zebra fish) - 530 mg/l - 96 h(Pentan-1-ol)
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 - Pseudokirchneriella subcapitata (green algae) - > 100 mg/l - 72 h (OECD Test Guideline 201) static test NOEC - Pseudokirchneriella subcapitata (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

Waste treatment methods	No data available
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14. Transport information

UN number	ADR/RID: 1161 IMDG: 1161 IATA: 1161
UN proper shipping name	ADR/RID: DIMETHYL CARBONATE IMDG: DIMETHYL CARBONATE IATA: Dimethyl carbonate
Transport hazard class(es)	ADR/RID: 3 IMDG: 3 IATA: 3

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

15. Regulatory information

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.
National legislation	Seveso III: Directive 2012/18/EU of the European : FLAMMABLE LIQUIDS Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
DSCL (EEC)	R8- Contact with combustible material may cause fire. R20/22- Harmful by inhalation and if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin. R42/43- May cause sensitization by inhalation and skin contact. S22- Do not breathe dust. S24- Avoid contact with skin. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37- Wear suitable gloves.
Other regulations	Take note of Dir 94/33/EC on the protection of young people at work.
Chemical Safety Assessment	For this product a chemical safety assessment was not carried out

16. Other information

Other Information	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. DISCLAIMER OF LIABILITY :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.
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