

# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200)



# spectrum®

Revision date 17-March-2025

Revision Number 2

## 1. Identification

### Product identifier

Product Name DIMETHYL CARBONATE

### Other means of identification

Product Code(s) D2285

UN number or ID number UN1161

Synonyms None

Other information No information available

### Recommended use of the chemical and restrictions on use

Recommended use No information available

Restrictions on use No information available

### Details of the supplier of the safety data sheet

#### Supplier Address

Spectrum Chemical Mfg. Corp.  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000

### Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300

## 2. Hazard(s) identification

### Classification

Flammable liquids

Category 2

### Hazards not otherwise classified (HNOC)

Not applicable.

### Label elements



Danger

**Hazard statements**

Highly flammable liquid and vapor.

**Precautionary Statements - Prevention**

Do not get in eyes, on skin, or on clothing.  
Wash face, hands and any exposed skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Keep container tightly closed.  
Ground and bond container and receiving equipment.  
Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
Use only non-sparking tools.  
Take action to prevent static discharges.  
Wear protective gloves/clothing and eye/face protection.

**Precautionary Statements - Response**

Specific treatment (see ? on this label).  
Immediately call a POISON CENTER or doctor.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
Wash contaminated clothing before reuse.  
In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish.

**Precautionary Statements - Storage**

Store locked up.  
Store in a well-ventilated place. Keep cool.

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant.

**Unknown acute toxicity****Other information**

May be harmful if inhaled.

**3. Composition/information on ingredients****Substance**

Chemical name	CAS No.	Weight-%
Dimethyl Carbonate	616-38-6	100

**4. First-aid measures****Description of first aid measures****General advice**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

<b>Inhalation</b>	Remove to fresh air.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical attention.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention.
<b>Self-protection of the first aider</b>	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	No information available.
<b>Effects of Exposure</b>	No information available.

**Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Treat symptomatically.
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**5. Fire-fighting measures**

<b>Suitable Extinguishing Media</b>	Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray. Alcohol resistant foam.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
<b>Hazardous combustion products</b>	Carbon Monoxide, Carbon Dioxide.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	Yes.
<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.
<b>Other information</b>	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

**Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
<b>Methods for cleaning up</b>	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.

**7. Handling and storage****Precautions for safe handling**

<b>Technical Measures/Precautions:</b>	Provide sufficient air exchange and/or exhaust in work rooms Remove all sources of ignition To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded Keep away from incompatible materials
<b>Advice on safe handling</b>	Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse.
<b>General hygiene considerations</b>	Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

**Conditions for safe storage, including any incompatibilities**

<b>Storage Conditions</b>	Protect from moisture. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up.
<b>Incompatible Materials:</b>	Acids Alkalis Oxidizing agents Reducing agents

**8. Exposure controls/personal protection****Control parameters**

<b>Exposure Limits</b>	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
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**Appropriate engineering controls**

<b>Engineering controls</b>	Showers Eyewash stations
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Ventilation systems.

#### **Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	Tight sealing safety goggles.
<b>Hand protection</b>	Wear suitable gloves. Impervious gloves.
<b>Skin and body protection</b>	Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots. Impervious clothing.
<b>Respiratory protection</b>	Appropriate respiratory protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

### **9. Physical and chemical properties**

#### **Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid
<b>Appearance</b>	Clear
<b>Color</b>	Colorless
<b>Odor</b>	Pleasant
<b>Odor threshold</b>	No information available

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>
<b>pH</b>	No data available	None known
<b>pH (as aqueous solution)</b>		None known
<b>Melting point / freezing point</b>	2 - 4 °C / 35.6 - 39.2 °F	None known
<b>Initial boiling point and boiling range</b>	90 - 91 °C / 194.0 - 195.8 °F	None known
<b>Flash point</b>	18 - 21.6672 °C / 64.4 - 71.001 °F	None known
<b>Evaporation rate</b>	no data available	None known
<b>Flammability</b>	no data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	12.87	
<b>Lower flammability or explosive limits</b>	4.22	
<b>Vapor pressure</b>	5.6	None known
<b>Relative vapor density</b>	No data available	None known
<b>Relative density</b>	1.069 @ 20°C 1.0636 @ 25°C	None known
<b>Water solubility</b>	Insoluble in cold water Insoluble in hot water	None known
<b>Solubility(ies)</b>	no data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>		None known
<b>Kinematic viscosity</b>	no data available	None known
<b>Dynamic viscosity</b>	No data available	None known

#### **Other information**

<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available
<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC content</b>	No information available
<b>Liquid Density</b>	No information available
<b>Bulk density</b>	No information available

## 10. Stability and reactivity

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	Heat, flames and sparks.
<b>Incompatible materials</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	Spontaneous polymerisation.

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Fatal in contact with skin. (based on components).
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Symptoms</b>	No information available.
<b>Acute toxicity</b>	Fatal in contact with skin.

#### Numerical measures of toxicity

#### Unknown acute toxicity

##### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Dimethyl Carbonate 616-38-6	= 13 g/kg ( Rat )	> 5 g/kg ( Rabbit )	= 140 mg/L ( Rat ) 4 h

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

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.

<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.
<b>Other adverse effects</b>	No information available.
<b>Interactive effects</b>	No information available.

## 12. Ecological information

<b>Ecotoxicity</b>	Harmful to aquatic life with long lasting effects.
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Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Dimethyl Carbonate 616-38-6	-	LC50: >=100mg/L (96h, Danio rerio)	-	-

<b>Persistence and degradability</b>	No information available.
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<b>Bioaccumulation</b>	There is no data for this product.
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<b>Other adverse effects</b>	No information available.
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## 13. Disposal considerations

### Disposal methods

<b>Waste from residues/unused products</b>	Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated packaging</b>	Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

## 14. Transport information

### DOT

<b>UN number or ID number</b>	UN1161
<b>Proper shipping name</b>	Dimethyl carbonate
<b>Transport hazard class(es)</b>	3
<b>Special Provisions</b>	II
<b>Special Provisions</b>	IB2, T4, TP1

DOT Marine Pollutant	NP
Description	UN1161, Dimethyl carbonate, 3, II
Emergency Response Guide Number	129

**TDG**

UN/ID no.	UN1161
Proper shipping name	Dimethyl carbonate
Transport hazard class(es)	3
Packing Group	II
Description	UN1161, Dimethyl carbonate, 3, II

**MEX**

UN-No	UN1161
Proper Shipping Name	Dimethyl carbonate
Transport hazard class(es)	3
Packing Group	II
Description	UN1161, Dimethyl carbonate, 3, II

**ICAO (air)**

UN/ID no.	UN1161
Proper shipping name	Dimethyl carbonate
Transport hazard class(es)	3
Packing Group	II
Description	UN1161, Dimethyl carbonate, 3, II

**IATA**

UN number or ID number	UN1161
Proper shipping name	Dimethyl carbonate
Transport hazard class(es)	3
Packing group	II
Description	UN1161, Dimethyl carbonate, 3, II
ERG Code	3L

**IMDG**

UN number or ID number	UN1161
Proper shipping name	Dimethyl carbonate
Transport hazard class(es)	3
Packing group	II
EmS-No.	F-E, S-D
Marine pollutant	NP
Description	UN1161, Dimethyl carbonate, 3, II, (18°C c.c.)

**ADR**

UN number or ID number	UN1161
Proper shipping name	Dimethyl carbonate
Transport hazard class(es)	3
Packing group	II
Description	UN1161, Dimethyl carbonate, 3, II, (D/E)

**RID**

UN number or ID number	UN1161
Proper shipping name	Dimethyl carbonate
Transport hazard class(es)	3
Packing group	II
Description	UN1161, Dimethyl carbonate, 3, II

<b>15. Regulatory information</b>
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**International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	This product complies with ENCS:
<b>IECSC</b>	This product complies with China:
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AIIC</b>	All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).
<b>NZIoC</b>	Does not comply
<b>TCSI</b>	Does not comply

**Legend:****TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**NZIoC** - New Zealand Inventory of Chemicals**TCSI** - Taiwan Chemical Substance Inventory**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CAA (Clean Air Act)**

This product does not contain any substances regulated as pollutants pursuant to Clean Air Act (CAA).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated under applicable state right-to-know regulations

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**International Inventories**

Chemical name	CAS No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	IECSC	AIIC	EINECS-No.
	616-38-6	PresentACTIVE	Present KE-11278	Present	Present (2)-2853	Present	Present	Present 210-478-4

**U.S. Regulations**

Chemical name	Massachusetts	M.A. EHS:	New Jersey	New Jersey - Environmental Hazardous Substances	N.J.- Discharge Prevention:	New Jersey TCPA - EHS:	Pennsylvania	P.A. RTK - Environmental Hazard	P.A. RTK - Special Hazardous
Dimethyl Carbonate	Present		0747				Present		

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.****Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemical name	CAS No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
	616-38-6	Not Listed	Not Listed	Not Listed	Not Listed

**CERCLA/SARA**

CERCLA

TSCA

Chemical name	CAS No.	Hazardous Substances RQs	TPQ	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category
	616-38-6			None	None

**U.S. TSCA**

Chemical name	CAS No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
	616-38-6	Not Applicable	Not Applicable

**Canada****WHMIS 2015 - GHS Classifications**

WHMIS 2015 Hazard Classification Information:

The WHMIS 2015 classification of this product has not been validated or reviewed yet.

**Canada Hazardous Products Regulation** This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

Chemical name	CAS No.	Canada (DSL)	Canada (NDSL)
	616-38-6	Present	Not Listed

Chemical name	CAS No.	CEPA Schedule I - Toxic Substances
	616-38-6	Not listed
Chemical name	CAS No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
	616-38-6	Not listed

Chemical name	CAS No.	EU GHS - SV - CLP (1272/2008)
	616-38-6	Flammable liquids - Flam. Liq. 2: H225 Highly flammable liquid and vapour.607-013-00-6

**R-Phrases**

R11 - Highly flammable

**S -phrase(s)**

S 9 - Keep container in a well-ventilated place.

S16 - Keep away from sources of ignition - No smoking

S29 - Do not empty into drains

S33 - Take precautionary measures against static discharges

Chemical name	CAS No.	Classification according to Directive 67/548/EEC or 1999/45/EC	Concentration Limits:	Safety Phrases
Dimethyl Carbonate	616-38-6	F; R11	No information	S2 S9 S16

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**

F - Highly flammable

**16. Other information**

<b>NFPA</b>	<b>Health hazards</b> 0	<b>Flammability</b> 3	<b>Instability</b> 0	<b>Special hazards</b> -
<b>HMIS</b>	<b>Health hazards</b> 0	<b>Flammability</b> 3	<b>Physical hazards</b> 0	<b>Personal protection</b> X

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend**

SVHC: Substances of Very High Concern for Authorization:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances

vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

STOT: Specific Target Organ Toxicity

ATE: Acute Toxicity Estimate

LC50: 50% Lethal Concentration

LD50: 50% Lethal Dose

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation
+	Sensitizers		

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
Environmental Protection Agency  
Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
National Institute of Technology and Evaluation (NITE)  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
U.S. National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision date** 17-March-2025

**Revision Note** No information available.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**