

SAFETY DATA SHEET

Preparation Date: 6/16/2015

Revision date 2/1/2019

Revision Number: G2

1. IDENTIFICATION

Product identifier

Product code: D2285
Product Name: DIMETHYL CARBONATE

Other means of identification

Synonyms: Methyl Carbonate
CAS #: 616-38-6
RTECS # FG0450000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

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

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

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

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Flammable liquids	Category 2
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Label elements

Danger

Highly flammable liquid and vapor



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

May be harmful if inhaled

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

In case of fire: Use CO2, dry chemical, or foam to extinguish.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Dimethyl Carbonate	616-38-6	100

4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms May cause eye irritation
May cause skin irritation
Central nervous system effects

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media:

Carbon dioxide (CO₂). Dry chemical. Alcohol-resistant foam. Water spray.

Unsuitable Extinguishing Media:

Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous combustion products

Carbon Monoxide, Carbon Dioxide.

Specific hazards

Flammable. May be ignited by heat, sparks or flames. Container explosion may occur under fire conditions or when heated. Vapor may travel considerable distance to source of ignition and flash back. Vapors may form explosive mixtures with air. Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks).

Special Protective Actions for Firefighters

Specific Methods:

No information available

Special Protective Equipment for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment

Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

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.

Safe Handling Advice

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Keep away from heat and sources of ignition. Moisture sensitive.

Incompatible Materials:

- Acids
- Alkalis
- Oxidizing agents
- Reducing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Dimethyl Carbonate	616-38-6	None	None	None	None

Canada

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Dimethyl Carbonate	616-38-6	None	None	None	None

Australia and Mexico

Component	CAS No	Australia	Mexico
Dimethyl Carbonate	616-38-6	None	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles or Safety glasses with side-shields.

Skin and body protection: Chemical resistant apron
Gloves
Long sleeved clothing

Respiratory protection: Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid	Appearance: No information available.	Color: Clear. Colorless.
Odor: Pleasant.	Taste No information available.	Formula C3H6O3
Molecular/Formula weight (g/mole): 90.08	Flammability (solid, gas) Highly flammable	Flashpoint (°C/°F): Closed cup: 18°C/64.4°F; Open cup: 21.667°C/71°F
Flash Point Tested according to: Not available	Autoignition Temperature (°C/°F): No information available	Lower Explosion Limit (%): 4.22
Upper Explosion Limit (%): 12.87	Melting point/range(°C/°F): 2°-4°C/35.6°-39.2°F	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): 90°-91°C/194°-195.8°F	Bulk density: No information available	Density (g/cm3): No information available
Specific gravity: 1.069 @ 20°C 1.0636 @ 25°C	pH No information available	Vapor pressure @ 20°C (kPa): 5.6
Evaporation rate: No information available	Vapor density: 3.1	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): No information available	Viscosity: No information available
Miscibility: No information available	Solubility: Insoluble in cold water Insoluble in hot water	

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents, reducing agents, acids, alkalis

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials. Exposure to moisture.

Incompatible Materials: Acids
Alkalis
Oxidizing agents
Reducing agents

Hazardous decomposition products: Carbon oxides.

Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Eyes. Ingestion. Inhalation. Skin.

Acute Toxicity

Component Information

Dimethyl Carbonate	
CAS No	616-38-6

LD50/oral/rat = 13 g/kg Oral LD50 Rat
LD50/oral/mouse = 6 g/kg Oral LD50 Mouse
LD50/dermal/rabbit = >5 g/kg Dermal LD50Rabbit
LD50/dermal/rat = No information available
LC50/inhalation/rat = 140 mg/L Inhalation LC50 Rat 4 h
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

Product Information

LD50/oral/rat =
Value - Acute Tox = 13 g/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 6 g/kg

LD50/dermal/rabbit
Value - Acute Tox = > 5 g/kg

LD50/dermal/rat
VALUE - Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

Symptoms**Skin Contact:** May cause skin irritation.**Eye Contact:** May cause eye irritation.**Inhalation** May cause respiratory tract irritation. May cause drowsiness, unconsciousness, and central nervous system depression. Vapors may cause dizziness or suffocation.**Ingestion** May cause digestive (gastrointestinal) tract irritation.**Aspiration hazard** No information available.**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Chronic Toxicity** No information available.**Sensitization:** No information available.**Mutagenic Effects:** No information available**Carcinogenic effects:** Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Dimethyl Carbonate	616-38-6	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)**IARC (International Agency for Research on Cancer)**NTP (National Toxicology Program)**OSHA (Occupational Safety and Health Administration of the US Department of Labor)***Reproductive toxicity** No data is available**Reproductive Effects:** No information available**Developmental Effects:** No information available**Teratogenic Effects:** No information available**Specific Target Organ Toxicity****STOT - single exposure** No information available.**STOT - repeated exposure** No information available.**Target Organs:** Central nervous system.**12. ECOLOGICAL INFORMATION****Ecotoxicity****Product code:** D2285**Product name:** DIMETHYL
CARBONATE**Page**

Ecotoxicity effects: No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility in soil No information available
Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Dimethyl Carbonate	616-38-6	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN1161
Proper Shipping Name: Dimethyl carbonate
Hazard Class 3
Subsidiary Class No information available
Packing group: II
Emergency Response Guide Number 129
Marine Pollutant No data available
DOT RQ (lbs): No information available
Special Provisions IB2, T4, TP1
Symbol(s): No information available
Description: UN1161, Dimethyl carbonate, 3, II

TDG (Canada)

UN-No: UN1161
Proper Shipping Name: Dimethyl carbonate
Hazard Class 3
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant No Information available
Description: UN1161, Dimethyl carbonate, 3, II

ADR

UN Number UN1161
Proper Shipping Name: Dimethyl carbonate
Transport hazard class(es) 3
Packing group II
Subsidiary Risk: No information available

Description: UN1161, Dimethyl carbonate, 3, II

IMDG

UN-No: UN1161
Proper Shipping Name: Dimethyl carbonate
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant No information available
EMS: F-E
Description UN1161, Dimethyl carbonate, 3, II

RID

UN Number UN1161
Proper Shipping Name: Dimethyl carbonate
Transport hazard class(es) 3
Subsidiary Risk: No information available
Packing group II
Description: UN1161, Dimethyl carbonate, 3, II

ICAO (air)

UN-No: UN1161
Proper Shipping Name: Dimethyl carbonate
Hazard Class 3
Subsidiary Risk: No information available
Packing Group: II
Description: UN1161, Dimethyl carbonate, 3, II

IATA

UN Number UN1161
Proper Shipping Name: Dimethyl carbonate
Transport hazard class(es) 3
Subsidiary Risk: No information available
Packing group II
Precautionary Statements - Response 3L
Special Provisions No information available
Description: UN1161, Dimethyl carbonate, 3, II

15. REGULATORY INFORMATION

International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia AICS	EINECS-No.
<i>Dimethyl Carbonate</i>	616-38-6	PresentACTIV E	Present KE-11278	Present	Present (2)-2853	Present	Present	Present 210-478-4

U.S. Regulations

Dimethyl Carbonate

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0747
Pennsylvania RTK: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

Product code: D2285

Product name: DIMETHYL CARBONATE

Page

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)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Dimethyl Carbonate	616-38-6	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Dimethyl Carbonate	616-38-6	None	None	None	None	None

U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Dimethyl Carbonate	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

DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Dimethyl Carbonate	616-38-6	Present	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Dimethyl Carbonate	616-38-6	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Dimethyl Carbonate	616-38-6	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

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

EU - CLP (1272/2008)

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

Component	CAS No	Classification	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

Preparation Date: 6/16/2015
Revision date 2/1/2019
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet