

# Material Safety Data Sheet

## Dimethyl carbonate, 99%

ACC# 43465

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Dimethyl carbonate, 99%

**Catalog Numbers:** AC116120000, AC116120010, AC116120025, AC116120050, AC116121000, AC116125000 AC116125000

**Synonyms:** Methyl carbonate; Carbonic acid dimethyl ester.

**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
616-38-6	Dimethyl carbonate	99	210-478-4

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. Flash Point: 18 deg C.

**Warning! Flammable liquid and vapor.** May cause eye irritation.

**Target Organs:** Central nervous system.

#### Potential Health Effects

**Eye:** May cause mild eye irritation. On ECB site, says slightly irritating to eye.

**Skin:** May cause mild skin irritation. Not expected to cause an allergic skin reaction. A single prolonged skin exposure is not likely to result in the material being absorbed in harmful amounts. On ECB site, it says not irritating to skin.

**Ingestion:** May cause irritation of the digestive tract.

**Inhalation:** May cause respiratory tract irritation. Vapors may cause dizziness or suffocation.

**Chronic:** No information found.

### Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Flammable liquid and vapor. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.

**Extinguishing Media:** Use extinguishing media most appropriate for the surrounding fire.

**Flash Point:** 18 deg C ( 64.40 deg F)

**Autoignition Temperature:** 458 deg C ( 856.40 deg F)

**Explosion Limits, Lower:**4.22 vol %

**Upper:** 12.87 vol %

**NFPA Rating:** (estimated) Health: 1; Flammability: 3; Instability: 1

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

### Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Take precautionary measures against static discharges. Keep container tightly closed. Keep away from heat, sparks and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Avoid breathing vapor or mist.

**Storage:** Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Dimethyl carbonate	none listed	none listed	none listed

**OSHA Vacated PELs:** Dimethyl carbonate: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear chemical splash goggles.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** clear, colorless

**Odor:** pleasant odor

**pH:** Not available.

**Vapor Pressure:** 53 hPa @ 20 deg C

**Vapor Density:** 3.1 (air=1)

**Evaporation Rate:** Not available.

**Viscosity:** 0.625 cPs 20 deg C

**Boiling Point:** 90 deg C @ 760 mm Hg

**Freezing/Melting Point:** 0.5 - 4.7 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Insoluble.

**Specific Gravity/Density:** 1.0690 g/ml

**Molecular Formula:** C<sub>3</sub>H<sub>6</sub>O<sub>3</sub>

**Molecular Weight:** 90.08

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Ignition sources, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 616-38-6: FG0450000

**LD50/LC50:**

CAS# 616-38-6:

Oral, mouse: LD50 = 6 gm/kg;

Oral, rat: LD50 = 13 gm/kg;

Skin, rabbit: LD50 = >5 gm/kg;

Inhalation LC50 rat >= 140 mg/l/4H (SNPE Chimie).

**Carcinogenicity:**

CAS# 616-38-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No data available.

**Teratogenicity:** No data available.

**Reproductive Effects:** No data available.

**Mutagenicity:** No data available.

**Neurotoxicity:** No data available.

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.

**Environmental:** No information available.

**Physical:** No information available.

**Other:** Readily biodegradable.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	DIMETHYL CARBONATE	DIMETHYL CARBONATE
<b>Hazard Class:</b>	3	3
<b>UN Number:</b>	UN1161	UN1161
<b>Packing Group:</b>	II	II
<b>Additional Info:</b>		FLASHPOINT 18 C

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 616-38-6 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 616-38-6: immediate, fire.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.  
This material does not contain any Class 1 Ozone depletors.  
This material does not contain any Class 2 Ozone depletors.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.  
None of the chemicals in this product are listed as Priority Pollutants under the CWA.  
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 616-38-6 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

#### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

##### Hazard Symbols:

F

##### Risk Phrases:

R 11 Highly flammable.

##### Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.  
S 9 Keep container in a well-ventilated place.

#### WGK (Water Danger/Protection)

CAS# 616-38-6: 1

#### Canada - DSL/NDSL

CAS# 616-38-6 is listed on Canada's DSL List.

#### Canada - WHMIS

This product has a WHMIS classification of B2.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Section 16 - Additional Information

**MSDS Creation Date:** 8/06/1997

**Revision #5 Date:** 5/15/2006

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