



上海奥利埃化工有限公司

SHANGHAI ORIENT CHEMICAL CO., LTD

## Safety Data Sheet

### Section 1 IDENTIFICATION

**GHS Product identifier:** Dimethyl carbonate.

**Other means of identification:** DMC; Methyl Carbonate; Carbonic acid dimethyl ester; Dimethyl ester of carbonic acid

**Recommended use of the chemical and restrictions on use:** This material can be used in pesticide and medicine production, chemical industry and so on.

**Supplier's details:**

Name: Shanghai Orient Chemical Co., Ltd (Greenchem International Limited)

Address: No. 3615 GONGHEXIN Road, Jing'an District, Shanghai, P.R.C., 200435

Tel: +86-21-56980977

Fax: +86-21-59969200

Email: info@greenchemintl.com

**Emergency phone number: +86-21-59969669**

### Section 2 HAZARDS IDENTIFICATION

**Classification of the substance or mixture:**

Flammable liquids Category 2

**GHS Label elements, including precautionary statements:**



**Signal word:** Danger

**Hazard statement(s):** Highly flammable liquid and vapor.

**Precautionary statement(s):**

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/eye protection/face protection

Response:

In case of fire: Use water, powder, chemical foam for extinction. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents/container to in accordance with national regulations.

**Other hazards which do not result in classification: /**

### Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration%
Dimethyl carbonate	616-38-6	99.50%

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#### Section 4 FIRST AID MEASURES

##### Description of necessary first aid measures

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms/effects, acute and delayed:** /

**Indication of immediate medical attention and special treatment needed, if necessary:** /

#### Section 5 FIREFIGHTING MEASURES

**Suitable extinguishing media:** Use alcohol-resistant foam, dry chemical or water

**Special hazards arising from the chemical:** Liquid and vapour are highly flammable. May explode and burn in high temperature and fire and produce toxic fumes.

**Special protective actions for fire-fighters:** Wear self-contained breathing apparatus for firefighting if necessary. Use water spray to cool unopened containers.

#### Section 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up:** Contain spillage and then collect with pump and place in container for disposal according to local regulations.

#### Section 7 HANDLING AND STORAGE

**Precautions for safe handling:** Wear protective gloves/eye protection/face protection/protective clothing. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking.

**Conditions for safe storage, including any incompatibilities:** Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

#### Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters:** /

**Appropriate engineering controls:** Local exhaust ventilation or a process enclosure ventilation system may be required.

##### Individual protection measures

**Eye/face protection:** Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.

**Skin protection:** Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber. Impervious clothing,

**Respiratory protection:** Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant.

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Thermal hazards: /

Section 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, colour etc)	Colorless transparent liquid.
Odour	/
Odour Threshold	/
pH	/
Melting point/freezing point	3°C.
Initial boiling point and boiling range	90°C.
Flash point	18°C.
Evaporation rate	/
Flammability (solid, gas)	/
Upper/lower flammability or explosive limits	4.2%-12.9%.
Vapour pressure	7.4 kPa (25°C).
Vapour density	3.1.
Relative density	1.07.
Solubility(ies)	Insoluble in water.
Partition coefficient: n-octanol/water	/
Auto-ignition temperature	458°C.
Decomposition temperature	/
Viscosity	/

Section 10 STABILITY AND REACTIVITY

<p><b>Reactivity:</b> /</p> <p><b>Chemical stability:</b> This material is stable in normal temperature.</p> <p><b>Possibility of hazardous reactions:</b> /</p> <p><b>Conditions to avoid:</b> Spark and static electricity.</p> <p><b>Incompatible materials:</b> Flammable materials, oxidizing agent.</p> <p><b>Hazardous decomposition products:</b> CO, CO<sub>2</sub>.</p>
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Section 11 TOXICOLOGICAL INFORMATION

<p><b>Information on the likely routes of exposure:</b> Inhaled, swallowed, skin, eyes.</p> <p><b>Symptoms related to the physical, chemical and toxicological characteristics:</b> /</p> <p><b>Acute health effects:</b> Accidental ingestion of the material may be harmful and cause cough, throat pain. Oral intake cause headache, giddiness, vomit and fetal damage. This material may produce skin and eyes irritation.</p> <p><b>Chronic health effects:</b> /</p> <p><b>Numerical measures of toxicity(such as acute toxicity estimates):</b></p>	
<b>TOXICITY</b>	<b>IRRITATION</b>
Oral (rat) LD50: 13000 mg/kg	Nil Reported
Intraperitoneal (rat) LD50: 1600 mg/kg	



Oral (mouse) LD50: 6000 mg/kg

Intraperitoneal (mouse) LD50: 800 mg/kg

Dermal (rabbit) LD50: >5000 mg/kg

#### Section 12 ECOLOGICAL INFORMATION

**Toxicity:** /

**Persistence and degradability:** High.

**Bioaccumulative potential:** Low.

**Mobility in soil:** High.

**Other adverse effects:** /

#### Section 13 DISPOSAL CONSIDERATIONS

**Disposal methods:** Burial in a land-fill specifically licensed to accept chemical. Reuse of broken container is forbidden.

#### Section 14 TRANSPORT INFORMATION

**UN number:** 1161.

**UN proper shipping name:** DIMETHYL CARBONATE.

**Transport hazard class(es) :** 3.

**Packing group, if applicable:** II.

**Environmental hazards:** /

**Special precautions for user:** /

#### Section 15 REGULATORY INFORMATION

**Regulations:** This safety data sheet is in compliance with the following national standards: GB16483-2008, GB13690-2009, GB6944-2005, GB/T15098-2008, GB18218-2009, GB15258-2009, GB6944-2005, GB190-2009, GB191-2009, GB12268-2008, GA57-1993, GB/T 15098-2008, GBZ 2-2007 as well as the following national regulations: Dangerous Goods Transport Administrative Regulation [Published by the Ministry of Railways, 2008], Dangerous Chemicals Safety Administrative Regulation [Published by the State Council, 2011], United Nations Regulations on the Transport of Dangerous Goods (UN RTDG).

#### Section 16 OTHER INFORMATION

<b>References</b>	UN Recommendations on the Transport of Dangerous Goods Model Regulations UN Globally Harmonized System of Classification and Labelling of Chemicals
<b>Form Date</b>	26-May-2023

Note 1: When products contain two or more hazardous substances, Safety Data Sheets should be prepared based on the risk of the mixture.

Note 2: Manufacturer / supplier should ensure the correctness of the information contained in the safety data sheets, and updated in a timely manner.

Note 3: As a result of product features without the existence of certain information or no data available (such as boiling point does not exist for the solid) in the table with "/" logo.