

# <u>Technical Data Sheet</u>

## Dimethyl Carbonate

## **Product Information**

Chemical Name Chemical Structure Dimethyl Carbonate



CAS #	616-38-6
Formula	210-478-4
Molecular Weight	90.08
Synonyms	methylcarbonate((meo)2co);DIMETHYL CARBONATE;DMC

## Description

DMC is Colorless and transparent

### **Physical Properties**

Physical state and appearance: Liquid. Odor: Pleasant. Taste: Not available. Molecular Weight: 90.08 g/mole Color: Colorless. Clear pH (1% soln/water): Not applicable. Boiling Point: 90°C (194°F) - 91 C. Melting Point: 2°C (35.6°F) - 4 C. Critical Temperature: 274.85°C (526.7°F) Specific Gravity:1.069 @ 20 C.(Water = 1) 1.0636 @ 25 C. Vapor Pressure: 5.6 kPa (@ 20°C) Vapor Density: 3.1 (Air = 1)

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## Specification

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Item	Specification	
Appearance	Colorless transparent Liqui	
Assay, %	≥ 99.50	
Moisture, %	≤0.10	
Methanol, %	≪0.02	
Acidity (CH3COOH), % ≤ 0.015		
Free Chlorine, %	$\leqslant$ 0.01	
Color(APHA)	≤10	

## Applications

1)It is a perfect methylating agent, carbonylating agent, methoxylating agent and methylolating agent with active chemical properties. It can be used into produce polypropylene carbonate.

2)In pharmaceutical and pesticide, DMC can be used into produce ciprofloxacin and carbadox. Also it is a indispensable raw material to produce lithium battery electrolyte. Because of its excellent chemical and environmental property, recently DMC is acting as a good solvent for coating, paints, ink and adhesive substituting the benzene, xylene, ethyl acetate, butyl acetate, acetone, butanone, toluene.

It is an ideal substitute for toxic substances such as phosgene, dimethyl sulphate, and methyl chloraformate.

3)Dimethyl carbonate (DMC), is a kind of important intermediates organic synthesis, molecular structure contains carboyl ethyl and armour, such as oxygen functional group, has a variety of reaction performance in the production safety, convenient, have use less pollution, easy to transport all those characteristics. Due to the lower toxicity dimethyl carbonate, is a potential "green" chemical product.

4) Be used in producing Lithium battery electrolyte, developing liquid.

## Packaging

1)200kg per plastic or iron drum.
 16.0mt per 20ft container
 2)Iso tank total 22MT per tank

## Storage & Handling

1)Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material.

Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing.

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 oxidizing agents, reducing agents, acids, alkalis.

2)Storage:

Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).