

SAFETY DATA SHEET

BIS(TRIMETHYL) CARBONATE

SECTION 1: Identification of the substance/mixture and of the company/undertaking Trade name:

1.1 Product identifier:	
CAS Number:	2031-64-1.
EC number:	218-783-3.
1.2 SYNONYMS:	• Dimethylolpropane trimethyl carbonate (DMTMC) • Bis(trimethyl methanediol carbonate) • Bis(methyl carbonate) • 1,3-bis(trimethyl carbonate)propane

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	Labelling according to Regulation (EC) No 1272/2008 Eye Irritation (Category 2) Skin Irritation (Category 2) Flammable Liquids (Category 3) Specific Target Organ Toxicity (Single Exposure - Category 3) Aquatic Hazard (Chronic Category 3)
Hazard Pictograms:	
Signal Word:	Warning
Hazard statements:	H226: Flammable liquid and vapor. H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation.

	H412: Harmful to aquatic life with long-lasting effects.
Precautionary Statements:	P210: Keep away from heat, sparks, open flames, and hot surfaces. No smoking. P280: Wear protective gloves/protective clothing/eye protection/face protection. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
2.3 Other hazards:	
Inhalation:	may cause respiratory irritation, leading to symptoms such as coughing, throat irritation, or difficulty breathing.
Ingestion:	may cause gastrointestinal irritation, leading to symptoms such as nausea, vomiting, or abdominal discomfort.
Skin Contact:	may cause irritation, resulting in redness, dryness, or discomfort at the site of contact.
Eye contact:	may cause irritation, leading to redness, watering, and discomfort in the eyes.
Chronic Exposure:	may lead to prolonged irritation of the skin, eyes, or respiratory system, and could potentially cause long-term damage to these tissues with repeated or prolonged contact.

Aggravation of pre-existing conditions:	may worsen pre-existing skin, eye, or respiratory conditions, such as dermatitis, asthma, or other respiratory disorders, due to its irritant properties.
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SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 2031-64-1 BIS(TRIMETHYL) CARBONATE
Identification number(s):	EC number: 218-783-3

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
After skin contact:	Remove contaminated clothing. Wash with soap and water. Consult a physician.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician.
After swallowing:	Rinse mouth with water. Immediately after ingestion. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	The most important symptoms include acute eye and skin irritation, respiratory discomfort from inhalation, and

	gastrointestinal irritation if ingested, with potential for delayed respiratory effects from prolonged exposure.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Carbon dioxide. Water spray. Alcohol-resistant foam.
5.2 Special hazards arising from the substance or mixture:	Carbon monoxide
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device. Cool tanks/drums with water spray/remove them into safety.
5.4 further information:	no data available

SECTION 6: Accidental release measures

6.1 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. Beware of vapours accumulating to form explosive concentrations. Avoid dust accumulation. Seek medical attention.
6.2 Environmental precautions:	Do not enter this chemical into drains.
6.3 Methods and material for containment and cleaning up:	Take up spill into absorbent material, e.g.: sand, earth, vermiculite, powdered limestone. Scoop absorbed substance into closing containers. Spill must not

	return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.
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SECTION 7: Handling and storage

7.1 Precautions for safe handling:	For use in are with adequate ventilation. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material Do not use in confined spaces. Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.
7.2 Conditions for safe storage, including any incompatibilities:	Store in original containers. Keep containers securely sealed Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Store in a dry and dark area.
Requirements to be met by storerooms and receptacles:	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.
7.3 Specific end uses:	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended.
8.2 Exposure controls	

Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.
Protection of hands:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands.
	Eye protection: Required
Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance: Form:	Liquid
Colour:	Colourless
Odour:	Mild ester like
pH-value:	Not applicable
Melting point/Melting range:	No data available
Boiling point/Boiling range:	180°C
Flammability (solid, gaseous):	Flammable
Ignition temperature:	Not determined
Decomposition temperature:	Not determined

Self-igniting:	None
Flash point:	50°C
Danger of explosion:	None
Explosion limits: Lower:	Not determined
Explosion limits: Upper:	Not determined
Vapour pressure:	0.2 hPa at 25°C
Density at 20 °C:	1.065 g/cm ³
Relative density:	1.065
Vapour density:	Not determined
Evaporation rate:	Not determined
Solubility in / Miscibility with- water at 20 °C:	Insoluble
Partition coefficient:(n- octanol/water)	No data available
Viscosity:	3.5 mPa.s at 25°C

SECTION 10: Stability and reactivity

10.1 Reactivity	No reaction under normal conditions.
10.2 Chemical stability	This chemical is stable under storage conditions.
10.3 Possibility of hazardous reactions	Hydrolysis may occur slowly in the presence of water, releasing methanol and carbon dioxide.
10.4 Conditions to avoid	Heat, flame, sparks, moisture, strong acids
10.5 Incompatible materials	Strong acids, strong bases, oxidizing agents, moisture.
10.6 Hazardous decomposition products	Methanol, carbon dioxide, carbon monoxide.

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	LD50 (Oral, Rat): no data available LD50 (Dermal, Rabbit): no data available

	LC50 (Inhalation Rat): no data available
Skin corrosion/Irritation:	May cause irritation
Serious eye damage/irritation:	can cause serious eye irritation.
Respiratory damage/irritation:	Can cause serious irritation.
Ingestion:	may cause gastrointestinal irritation.
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Specific target organ toxicity - single exposure:	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure:	No data available
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Refer section 2.3
11.2 Additional toxicological information	
Biodegradability:	Not Biodegradable

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:	LC50(fish): no data available EC50(daphnia): no data available EC50(algae): no data available
12.2 Persistence and degradability:	Not Biodegradable
12.3 Bioaccumulative potential:	not bioaccumulative
12.4 Mobility in soil:	moderate mobility
12.5 Other adverse effects:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	Water and Soap, Isopropyl alcohol, Acetone, Commercial degreasers.

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	1993
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	BIS(TRIMETHYL) CARBONATE
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	3
14.4 Packing group · ADR, IMDG, IATA:	2
14.5 Environmental hazards:	Yes, harmful for aquatic life
14.6 Special precautions for user:	Handle responsibly.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	Directive 2012/18/EU, under that this substance is classified in listed substance as flammable and environment hazard.
Named dangerous substances:	This substance is not listed in the annex 1 to the directive.
15.2 Chemical safety assessment:	Chemical assessment has not been carried out.

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.