

MATERIAL SAFETY DATA SHEET

According to the UN GHS 8th rev. edition

Cyclohexyl methacrylate

Version 1.0

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SDS Record Number: CSSS-TCO-010-145376

SECTION 1: Identification

GHS Product identifier: Cyclohexyl methacrylate

Other means of identification: See section 3

Recommended use of the chemical and restrictions on use

Recommended use: Use as a monomer for solution polymerization or suspension polymerization or use as a comonomer.

Recommended restrictions: Not available

Supplier's details:

Supplier(Manufacturer): FuShun DongLian AnXin Chemical CO.,LTD

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SECTION 2: Hazard identification

Classification of the substance or mixture:

Physical hazards: Flammable liquids category 4

Health hazards: Skin sensitisation Category 1

Environmental hazards: Not classified

GHS label elements:

Hazard Pictograms: :



Signal word: Warning

Hazard statement(s): Combustible liquid.
May cause an allergic skin reaction.

Precautionary statement(s):

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Response: IF ON SKIN: Wash with plenty of water.
If skin irritation or rash occurs: Get medical help.
Take off contaminated clothing and wash it before reuse.
In case of fire: Use carbon dioxide, dry extinguishing media, water spray, foam to extinguish.

Storage: Store in a well-ventilated place.

Disposal: Dispose of contents/container to local regulations.

Other hazards which do not result in classification: Not applicable

SECTION 3: Composition/information on ingredients

Substance/Mixture: Substance

Ingredient(s):

Chemical Name	CAS No.	Concentration (%) w/w
Cyclohexyl methacrylate	101-43-9	≥99.50% (w/w)

SECTION 4: First-aid measures

Description of necessary first-aid measures:

Inhalation:	Keep patient calm, remove to fresh air, seek medical attention.
Skin:	Flush with copious amounts of water for at least 15 minutes. Sterile protective dressing. Immediate medical attention required.
Eye:	Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
Ingestion:	Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention.

Most important symptoms/effects, acute and delayed:

May cause an allergic skin reaction.

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

Treat symptomatically.

SECTION 5: Fire-fighting measures

Suitable extinguishing media:	Carbon dioxide, dry extinguishing media, water spray, foam.
Unsuitable extinguishing media:	Not available.
Specific hazards arising from the chemical:	Risk of violent self-polymerization if overheated in a container.
Special protective actions for fire-fighters:	Wear self-contained breathing apparatus. In case of a fire in the vicinity a restabilization system should be used if the temperature in the storage container reaches 45°C. Evacuate area of all unnecessary personnel. In case of a fire in the vicinity evacuate all personnel in a greater area if the temperature in the storage container reaches 60°C.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Take appropriate protective measures. Ensure adequate ventilation. Use personal protective clothing. Breathing protection required.
Environmental precautions:	Do not discharge into waterways or sewer systems without proper authorization.
Methods and materials for containment and cleaning up:	For large amounts: Pump off product. Dispose of absorbed material in accordance with regulations. For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

SECTION 7: Handling and storage

Precautions for safe handling:	Provide adequate ventilation. Practice good housekeeping. Avoid breathing excessive vapors. Avoid contact with skin and eyes. Wash thoroughly after handling. Do not get this material in contact with eyes. Use personal protection recommended in Section 8 of the SDS.
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Conditions for safe storage, including any incompatibilities: Keep only in the original container at a temperature not exceeding 30 °C. Fill the container by approximately 90 % only as oxygen (air) is required for stabilisation. Protect from light. Can polymerize with intense heat release.

SECTION 8: Exposure controls/personal protection

Control parameters: Not available.

Appropriate engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Individual protection measures:

Eye/face protection: If risk of splashing, wear safety goggles or face shield.

Skin protection: On handling of larger quantities: face mask, chemical-resistant boots and apron.

Hand protection: Use protective gloves made of: Rubber (natural, latex).

Respiratory protection: Gas mask with organic vapour canister (chin-style or front- or back-mounted).

Thermal protection: Wear protective clothes if necessary.

SECTION 9: Physical and chemical properties and safety characteristics

Basic physical and chemical properties

Physical state: Liquid

Colour: Colourless

Odour: Pleasant

Odor threshold: Not available

Melting point/Freezing point: -104°C at 1013 hPa

Boiling point or initial boiling point and boiling range: 210°C at 1013 hPa

Flammability(gases, liquids and solids): Flammable

Lower and upper explosion limit/flammability limit Not available

Flash point: 82°C at 1013 hPa

Auto-ignition temperature: 299°C at 1013 hPa

Decomposition temperature: Not available

pH: Not available

Kinematic viscosity Not available

Solubility (H₂O) : 137.2mg/L at 30°C

Partition coefficient n-octanol/water: LogKow=3.9 at 23°C

Vapor pressure: 8 mbar at 59°C

Density and/or relative density: 0.968g/cm³ at 20°C

Relative vapour density: Not available

Particle characteristics(solids): Not available

Viscosity: 1.9 mPa/sec at 20°C

Explosive properties: Non explosive

Oxidising properties: No oxidising properties

Molecular Formula: C₁₀H₁₆O₂

Molecular Weight: 168

SECTION 10: Stability and reactivity

Reactivity: Stable under normal temperature conditions.

Chemical stability: Material is stable under normal conditions

Possibility of hazardous reactions: Hazardous Polymerisation may polymerise.

Conditions to avoid: Avoid exposure to high temperatures or direct sunlight.
Incompatible materials

Incompatible materials: Oxidizing agents.

Hazardous decomposition products: Carbon monoxide, carbon dioxide.

SECTION 11: Toxicological information

Acute toxicity:

LD50(Oral, Rat): 12900 mg/kg bw

LD50(Dermal, Rat): >2000 mg/kg bw

LC50(Inhalation, Rat): 29.8 mg/L air

Skin corrosion/Irritation: A low potential for skin irritation.

Serious eye damage/irritation: No risk of serious damage to the eyes.

Respiratory or skin sensitization: Cyclohexyl methacrylate is a skin sensitizer of strong potency.

Germ cell mutagenicity: Negative.

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

STOT- single exposure: Not classified

STOT-repeated exposure: Not classified

Aspiration hazard: Not classified

SECTION 12: Ecological information

Toxicity:

Acute:

LC50(fish, 96h): 590mg/kg

EC50(Daphnia, 48h): 33.9 mg/L

EC50(algae, 72h): 12.5 mg/L

Chronic:

NOEC(fish): Not available.

NOEC(Daphnia): Not available.

EC50(algae): Not available.

Persistence and degradability: Readily biodegradable.

Bioaccumulative potential: No bioaccumulation.

Mobility in soil: No data available.

Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

Disposal methods: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

ADR

UN Number Not regulated

UN Proper Shipping Name Not regulated

Transport hazard class(es) Not regulated

Packing group Not regulated

IATA

UN Number Not regulated

UN Proper Shipping Name Not regulated
Transport hazard class(es) Not regulated
Packing group Not regulated

IMDG

UN Number Not regulated
UN Proper Shipping Name Not regulated
Transport hazard class(es) Not regulated
Packing group Not regulated
Environmental hazards
 Marine pollutant No
EmS Not regulated

RID

UN Number Not regulated
UN Proper Shipping Name Not regulated
Transport hazard class(es) Not regulated
Packing group Not regulated
Special precautions Read safety See section 2.2
ADR; IATA; IMDG; RID Not regulated
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: No information available

15. Regulatory information

Inventory status:

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AIIC)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Indication of changes: Version 1.0 Amended by GHS rev 8
Preparation date: 24-08-2021.
Abbreviations and acronyms: ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
RID: Regulation for rail International transportation of Dangerous goods
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG: Code international maritime dangerous goods code

ICAO: International Civil Aviation Organization

IATA: International Air Transport Association

LC50: median lethal concentration

EC50: The effective concentration of substance that causes 50% of the maximum response

NOEC: No Observed Effect Concentration

DNEL: derived no-effect level

PNEC: predicted no-effect concentration

Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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