Part 1 Product and Company Identification

> **Product Identification**

Product name	Methyl methacrylate
Synonyms	/
CAS No.	80-62-6
EC No.	201-297-1
Molecular Formula	$C_5H_8O_2$

> **Product Recommended and Limited Use**

Recommended Uses of the Product	Please consult manufacturer.
Limited Uses of the Product	Please consult manufacturer .

> **Safety Data Sheet Provider Information**

Supplier Name	Chongqing Yixiang Chemical Co., LTD
Supplier Address	No.9, Huabei Road, Yanjia Street Changshou District, ChongQing, China
Supplier Post Code	401221
Supplier Contact Number	+86-23-40767869
Supplier Fax	/
Supplier E-Mail	/

> **Emergency Phone Number** **CONTACT CANUTEC 24hours**

1-888-CAN-UTEC(226-8832) or (613)996-6666

> **Authorized Distributor / Sales Representative**

Distributed By	Van Bros Trading Co. Ltd.
Distributor Address	1005-8477 Bridgeport Rd Richmond BC V6X 0S7 Canada
Distributor Email	Info@vanbroschemicals.com

Part 2 Hazards Identification

Hazard class and label elements of the product according to GHS (the Tenth revised edition):

> **Emergency Overview**

No information available

> **GHS Hazard Class**

Flammable liquids	Category 2
Skin corrosion/irritation	Category 2
Skin sensitization	Category 1
Specific target organ toxicity – single exposure	Category 3 (may cause respiratory irritation)
Hazardous to the aquatic environment, short-term (Acute)	Category 3

> **GHS Label Elements**

Pictogram

Signal Word **Danger**

> **Hazard Statements**

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause allergic skin reaction.
H335	May cause respiratory irritation.
H402	Harmful to aquatic life.

> **Precautionary Statements**

Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/ lighting/ ...] equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P280	Wear protective gloves/protective clothing/eye protection/face protection /hearing protection/ ...
P264	Wash hands [and…] thoroughly after handling.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.

Response	
P370 + P378	In case of fire: Use carbon dioxide/water/foam to extinguish.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse areas with water [or shower].
P362 + P364	Take off contaminated clothing and wash it before reuse.
P333 + P317	If skin irritation or rash occurs: Get medical help.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P319	Get medical help if you feel unwell.
Storage	
P403+P235+P233	Store in a well-ventilated place. Keep cool. Keep container tightly closed.
P405	Store locked up.
Disposal	
P501	Dispose of contents/containers in accordance with local/regional/ national/international regulations.

> **Other Hazards**

Physical and Chemical Hazards

No information available

Health Hazards

No information available

Environmental Hazards

No information available

Part 3 Composition/Information on Ingredients

Component	Content(mass fraction, %)	CAS No.	EC No.
Methyl methacrylate	≥99.9	80-62-6	201-297-1

Part 4 First-Aid Measures

> **Description of First Aid Measures**

General Advice	Consult the doctor and show this safety data sheet (SDS) to the doctor at the scene.
Eye Contact	Remove eyelids immediately and rinse thoroughly with plenty of running water for at least 15 minutes. Call poison control center or get emergency medical help immediately. After the eyes are injured, contact lenses can only be removed by specially trained personnel.
Skin Contact	Take off the contaminated clothes immediately. Wash the contaminated area with plenty of soapy water and running water. If skin irritation persists, get medical help. Contaminated clothing should be placed in a double-layer, appropriately labeled, sealable waste disposal bag and washed before reuse.

Ingestion	Rinse mouth with water immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Inhalation	Remove person to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give cardio-pulmonary resuscitation and consult a physician immediately.
Protection of First-aiders	Ensure that medical staff are aware of the product involved. Take precautions to protect themselves and prevent the spread of contamination.

> **Most Important Symptoms and Effects, Both Acute and Delayed**

No information available

> **Indication of Any Emergency Medical Treatment and Special Treatment**

Perform targeted treatment according to the symptoms. Symptoms may be delayed.

Part 5 Fire-Fighting Measures

> **Extinguishing Media**

Suitable Extinguishing Medium	Dry powder/carbon dioxide/sand/water/alcohol resistant foam
Unsuitable Extinguishing Medium	Avoid extinguishing fire with too strong water vapour, as it may spread the flames.

> **Specific Hazards Arising from the Substance or Mixture**

1. Vapour can form explosive mixtures with air.
2. Vapour is heavier than air and may travel a considerable distance to reach the ignition source and backfire.
3. Substances may undergo explosive polymerization when exposed to heat or fire. Containers may explode when heated.
4. When a fire occurs, it may cause the production of hazardous gases or vapours, such as carbon oxides (COx).

> **Advice for Firefighters**

1. As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2. In the event of fire, cool tanks with water spray.
3. Fight fire from a safe distance, with adequate cover.
4. Prevent fire extinguishing water from contaminating surface water or the groundwater system.

Part 6 Accidental Release Measures

> **Personal Precautions, Protective Equipment and Emergency Procedures**

1. Immediately evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
2. Use personal protective equipment. Avoid inhaling vapours, mist, gas or dust.
3. Ensure adequate ventilation of the leakage area.
4. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

> **Environmental precautions**

Contact the manufacturers, and accept the instructions of manufacturers. Report to the emergency department and inform them of the location and nature of the accident. The contaminated surface is scrubbed with soap or detergent, and the near dilution of the sewage is placed in the wastewater system. Avoid spillover diffusion and direct contact into soil, rivers, sewers and sewer lines.

> **Storage, Elimination Methods and Disposal Materials Used for Leaking Chemicals**

1. Take all means to collect the leakage and avoid the diffusion of the leakage. In case of a small amount of leakage, dry sand or inert adsorbent can be used to absorb the leakage. In case of large amount of spillage, contain a spill by bunding.
2. Attachments or collections shall be stored in suitable airtight containers and disposed of in accordance with relevant local laws and regulations.
3. Wear protective clothing, gloves, and safety goggles to avoid contact with skin and eyes.

Part 7 Handling and Storage

> **Precautions for Handling**

1. Wear appropriate personal protective equipment.
2. Handling is performed in a well-ventilated place.
3. Avoid contact with skin and eyes.
4. Don’t eat, drink or smoke during operation.
5. Wash hands with soap and water after operation.

> **Precautions for Storage**

1. Keep containers tightly closed.
2. Store in a cool, dry, well-ventilated location.
3. Store away from incompatible materials and foodstuff containers.

Part 8 Exposure Controls/Personal Protection

> **Control Parameters**

Occupational Exposure Limit Values

Component	CAS No.	OELs (mg/m³)			Basis
		MAC	PC-TWA	PC-STEL	
Methyl methacrylate	80-62-6	/	100	/	GBZ 2.1-2019 Occupational exposure limits for hazardous agents in the workplace Part 1. Chemical hazards

Biological Limit Values

No information available

Monitoring Methods

1. EN 14042 Workplace air. Guidelines for procedures for assessing exposure to chemical or biological agents.
2. GBZ/T 160 Determination of toxic substances in workplace air (Series standard) and GBZ/T 300 Determination of toxic substances in workplace air (Series standard).

Engineering Controls

1. Ensure adequate ventilation, especially in confined areas.
2. Make sure there are eyewash and shower facilities near the workplace.
3. Set up emergency exit and necessary risk-elimination area.

> **Personal protective equipment**

Eye Protection	Wear chemical safety goggles (approved by EN 166(EU) or NIOSH (US)).
Hand Protection	Wear chemical protective gloves (e.g. butyl rubber gloves), passing the test according to EN 374(EU), US F739 or AS/NZS 2161.1 standard.
Respiratory Protection	Use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges if vapor concentrations exceed occupational exposure limits or when symptoms such as irritation occur.
Skin and Body Protection	Wear adhesive clothing, anti-penetration clothing, fire/flame-resistant retardant clothing and antistatic boots.

Part 9 Physical and Chemical Properties

Appearance: Colourless transparent liquid

Odour Thresholds: No information available

Melting Point/Freezing Point (°C): -48

Flash Point (°C) (Closed Cup): 10

Flammability: No information available

Vapor Pressure: 3.9kPa (at 20°C)

Relative Density (Water=1): 0.94

n-Octanol/Water Partition Coefficient:
log Kow=1.38

Decomposition Temperature (°C):
No information available

Odour: Pungent

pH: No information available

Initial Boiling Point and Boiling Range (°C):
100.36

Evaporation Rate: No information available

Upper/Lower Limit of Explosion [%(V/V)]:
No information available

Relative Vapour Density (Air=1): 3.5

Solubility: Slightly soluble in water (15.3g/L). Soluble in ether, ethanol, acetone and chloroform.

Auto-ignition Temperature (°C): 768

Kinematic Viscosity (mm^2/s):
No information available

Part 10 Stability and Reactivity

Reactivity	May polymerize if subjected to heat, polymerization catalysts, strong oxidizers, or ultraviolet light.
Chemical Stability	Stable under proper operation and storage conditions.
Possibility of Hazardous Reactions	No information available.
Conditions to Avoid	Incompatible materials, high temperature, ignition source, heat source. Extreme temperature and sun exposure.
Incompatible Materials	Strong oxidizers.
Hazardous Decomposition Products	Carbon oxide (COx).

Part 11 Toxicological Information

> **Acute Toxicity**

Component	CAS No.	LD50 (Oral)	LD50 (Dermal)	LC50 (Inhalation)
Methyl methacrylate	80-62-6	7872 mg/kg (rat)	> 5000 mg/kg (rabbit)	78 mg/L (rat)

> **Skin Corrosion/Irritation**

Causes skin irritation

> **Severe Eye Damage/Irritation**

No information available

> **Skin Sensitization**

May cause an allergic skin reaction

> **Respiratory Sensitization**

No information available

> **Germ Cell Mutagenicity**

No information available

> **Carcinogenicity**

Component	CAS No.	IARC	NTP
Methyl methacrylate	80-62-6	Category 3	/

> **Reproductive Toxicity**

No information available

> **Additional Harm of Reproductive Toxicity**

No information available

> **Specific Target Organ Toxicity – Single Exposure**

May cause respiratory irritation.

> **Specific Target Organ Toxicity – Repeated Exposure**

No information available

> **Aspiration Hazard**

No information available

Part 12 Ecological Informa

> **Acute Aquatic Toxicity**

Component	CAS No.	Fish	Crustaceans	Algae/aquatic plants
Methyl methacrylate	80-62-6	LC50: 79 mg/L (96h)	EC50: 69 mg/L (48h)	ErC50: 110 mg/L (72h)

> **Chronic Aquatic Toxicity**

Component	CAS No.	Fish	Crustaceans	Algae/aquatic plants
Methyl methacrylate	80-62-6	NOEC: 9.4 mg/L (35d)	NOEC: 37 mg/L (21d)	/

> **Others**

Persistence and Degradability No information available

Bioaccumulation No information available

Mobility in Soil No information available

Results of PBT and vPvB Assessment

Does not meet the criteria for PBT and vPvB according to regulation (EC) No. 1907/2006, annex XⅢ

Part 13 Disposal Considerations

Waste Chemicals Before disposal, relevant national and local laws and regulations should be referred to.

Contaminated Packaging Containers may still present chemical hazard when empty. Do your personal protection. Return to supplier for recycling if possible.

Dispose Recommendations Dispose of waste as follows: Consult the manufacturer about the method of recycling. Discard precautions: Operators should pay attention to their own safety protection and wear appropriate protective equipment. Never let water from washing equipment go down the drain. Refer to the relevant national and local laws and regulations before disposal.

Part 14 Transport Information

Transporting Label

Marine Pollutant No

UN Number 1247

UN Proper Shipping Name METHYL METHACRYLATE MONOMER, STABILIZED (Methyl methacrylate)

Transport Hazard Class 3

Transport Subsidiary Hazard Class /

Packaging Group Ⅱ

Part 15 Regulatory Information

> **International Chemical Inventory**

Component	EINECS	ENCS	KECL	TSCA	NZIoC	PICCS	AIIC	DSL
Methyl methacrylate	√	√	√	√	√	√	√	√

[EINECS] European Inventory of Existing Commercial Chemical Substances.
[ENCS] Japan Existing and New Chemical Substances Inventory.
[KECL] Korean Existing Chemicals List.
[TSCA] United States Toxic Substances Control Act Inventory.
[NZIoC] New Zealand Inventory of Chemicals.
[PICCS] Philippine Inventory of Chemicals and Chemical Substances.
[AIIC] Australian Inventory of Industrial Chemicals.
[DSL] Canada Domestic Substances List.

> **Chemical Management Directory of China**

Component	A	B	C	D	E	F	G	H
Methyl methacrylate	√	√	✗	✗	✗	✗	✗	√

[A] Inventory of Existing Chemical Substances in China (IECSC)
[B] Catalogue of Hazardous Chemicals in China (2015)
[C] List of Toxic Chemicals Restricted to be Imported/Exported in China
[D] Inventory of Chemicals Prohibited from Import/Export in China
[E] Catalog of Precursor Chemicals in China
[F] List of Hazardous Chemicals for Priority Management in China
[G] List of Controlled Narcotics and Psychotropic Drugs for Non-medical Use in China
[H] Chemical Substance Inventory in Taiwan, China (TCSI)

“√” Indicates that the substance included in the regulations
“×” That no date or included in the regulations

Part 16 Other Information

The format of this safety specification conforms to GHS (the Tenth revised edition) requires that the data come from international authoritative database and data submitted by enterprises, and other information is based on the present knowledge. This document is for users' reference only due to the diversity of information sources and the limitations of the center's knowledge. Users of safety technical specifications should make a judgment on the rationality of relevant information according to the purpose of use. We shall not be liable for any damage caused by the operation, storage, use or disposal of the product.

End of the report