Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name: Methyl methacrylate

Supplier and contact details removed.

Section 2. Composition/Information on Ingredients

Chemical Name	CAS No.	Concentration%
Methyl methacrylate	80-62-6	99.90%

Section 3. Hazards Identification

Classification of the substance or mixture

Flammable Liquid Category 2,

Skin Corrosion/Irritation Category 2,

Skin Sensitizer Category 1,

Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation).

GHS Label elements, including precautionary statements



Signal word: Danger

Hazard statement(s): Highly flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. May cause respiratory irritation.

Precautionary statement(s):

Prevention：

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash ... thoroughly after handling. Use only outdoors

or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection/ hearing protection.

Response：

In case of fire: Use fbam, dry powder, carbon dioxide or water spray to extinguish. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower]. If skin irritation or rash occurs: Get medical help. Specific treatment (see below). Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help if you feel unwell.

Storage：

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

Disposal：

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not result in classification: /

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

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

Indication of immediate medical attention and special treatment needed： /

Section 5. Fire Fighting Measures

Suitable extinguishing media: Foam. Dry chemical powder. Carbon dioxide. Water spray or fbg - Large fires only.

Special hazards arising from the chemical: Liquid and vapour are highly flammable. Severe fire hazard when exposed to heat, flame and/or oxidisers. Vapour may travel a considerable distance to source of ignition. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO).

Special protective actions for fire-fighters: May be violently or explosively reactive. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location.

If safe to do so, remove containers from path of fire.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment.
Environmental precautions: Stop leak if safe to do so.
Methods and materials for containment and cleaning up: Minor Spills: Contain and absorb small quantities with vermiculite or other absorbent material. Wipe up. Major Spills: Water spray or fbg may be used to disperse / absorb vapour. Contain spill with sand, earth or vermiculite. Use only spark-free shovels and explosion proof equipment. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite. Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains.

Section 7. Handling and Storage

Precautions for safe handling: Avoid all personal contact, including inhalation. Wear protective clothing when risk of overexposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. Avoid smoking, naked lights or ignition sources. Avoid generation of static electricity. DO NOT use plastic buckets. Earth all lines and equipment. Use spark-free tools when handling. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers.
Conditions for safe storage, including any incompatibilities: Store in original containers in approved flame-proof area. No smoking, naked lights, heat or ignition sources. DO NOT store in pits, depressions, basements or areas where vapours may be trapped. Keep containers securely sealed. Store away from incompatible materials in a cool, dry well ventilated area. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

Section 8. Exposure Controls/Personal Protection

Control parameters:
OCCUPATIONAL EXPOSURE LIMITS (OEL)

Source	Ingredient	Material name	TWA	STEL
China Occupational Exposure Limits fbr	Methyl methacrylate	Methyl methacrylate	100 mg/m^3	Not Available

Appropriate engineering controls: For flammable liquids and flammable gases, local exhaust ventilation

or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.

Personal protective equipment

Eye/face protection: Safety glasses with side shields. Chemical goggles.

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

Respiratory protection: Type A Filter of sufficient capacity.

Thermal hazards: /

Section 9. Physical and Chemical Properties

Appearance	Colorless transparent liquid.
Odour	/
Odour Threshold	/
PH	/
Melting point/freezing point	-48°C.
Initial boiling point and boiling range	100-101°C.
Flash point	W18.0P.
Evaporation rate	> 1.0 BuAc=l.
Flammability (solid, gas)	HIGHLY FLAMMABLE.
Upper/lower flammability or explosive limits	2.4-12.5%
Vapour pressure	4.6 @ 20°C.
Vapour density	3.45.
Relative density (water = 1)	0.936-0.94.
Water solubility	/
Partition coefficient: noctanol/water	/
Autoignition temperature	421-435°C
Decomposition temperature	/
Viscosity	/

Section 10. Stability and Reactivity

Reactivity: /

Chemical stability: Stable under controlled storage conditions provided material contains adequate stabilizer / polymerization inhibitor.

Possibility of hazardous reactions: Gradual decomposition in strong, sealed containers may lead to a large pressure build-up and subsequent explosion. Rapid and violent polymerization possible at temperatures above 32°C.

Conditions to avoid: Heat, flames and sparks.

Incompatible materials: Oxidising agents.

Hazardous decomposition products: Carbon monoxide (CO), carbon dioxide (CO_2), other pyrolysis products typical of burning organic material.

Section 11. Toxicological Information

Information on the likely routes of exposure: Inhaled, Ingestion, skin, eyes.
Symptoms related to the physical, chemical and toxicological characteristics: /
Acute health effects
Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo. Accidental ingestion of the material may be damaging to the health of the individual. The material either produces inflammation of the skin in a substantial number of individuals following direct contact. The material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s).
Chronic health effects: Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems.
Numerical measures of toxicity (such as acute toxicity estimates):
Dermal (rabbit) LD50: >5000 mg/kg
Inhalation (rat) LC50: 78 mg/l/4H
Oral (rat) LD50: 7872 mg/kg

Section 12. Ecological Information

Ecotoxicity
Do not empty into drains. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment. Contains a substance which is: Harmful to aquatic organisms.
Component
Methyl methacrylate
Freshwater Algae
EC50: = 170 mg/L, 96h (Pseudokirchneriella subcapitata)
Freshwater Fish
LC50: 326.4 - 426.9 mg/L, 96h static (Poecilia reticulata)
LC50: > 79 mg/L, 96h static (Oncorhynchus mykiss)
LC50: > 79 mg/L, 96h flow-through (Oncorhynchus mykiss)
LC50: 153.9 - 341.8 mg/L, 96h static (Lepomis macrochirus)
LC50: 170 - 206 mg/L, 96h flow-through (Lepomis macrochirus)
LC50: 125.5 - 190.7 mg/L, 96h static (Pimephales promelas)
LC50: 243 - 275 mg/L, 96h flow-through (Pimephales promelas)
Microtox

Not listed

Water Flea

EC50: = 69 mg/L, 48h (Daphnia magna)

Persistence and Degradability

Persistence is unlikely.

Bioaccumulation/ Accumulation

No information available.

Mobility

Will likely be mobile in the environment due to its water solubility.

log Pow 1.38

Section 13. Disposal Considerations

Disposal methods: Recycle wherever possible. Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. Dispose of by burial in a landfill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material). Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

Section 14. Transport Information

UN number: 1247.
UN proper shipping name: METHYL METHACRYLATE MONOMER, STABILIZED.
Transport hazard class(es): 3
Packaging group: II.
Environmental hazards: /
Special precautions for user: /

Section 15. Regulatory Information

Regulations： This safety data sheet is in compliance with the following national standards: GB/T 16483-2008, GB 13690-2009, GB/T 15098-2008, GB 18218-2018, GB 15258-2009, GB 6944-2012, GB 190-2009, GB/T 191-2008, GB 12268-2012, GBZ 2.1-2019 as well as the following national regulations: Dangerous Goods Transport Administrative Regulation, Dangerous Chemicals Safety Administrative Regulation.

Section 16. Additional Information

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purpose.

----------***End of Safety Data Sheet***----------