

Material Safety Data Sheet**METHACRYLIC ACID****Section 1 - Product Identification**

Product Name : Methacrylic Acid
CAS No. : 79-41-4
Synonym : 2-Methylpropenoic acid; 2-Methyl-2-propenoic acid.
Company Identification : Tradeasia International Pte. Limited
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Section 2 – Composition/Information on Ingredients**Substances**

| | |
|-------------------|--|
| Name of substance | Methacrylic Acid |
| Identifiers | |
| CAS No | 79-41-4 |
| Molecular formula | C ₄ H ₆ O ₂ |
| Molar Mass | 86.06 g/mol |

Section 3 – Hazardous Ingredients & Occupational Exposure Limits**Classification of the substances or mixture****Classification according to Regulation (EC) No 1272/2008**

Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 4), H332
Acute toxicity, Dermal (Category 3), H311
Skin corrosion (Category 1A), H314
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

Label Elements**GHS Label elements, including precautionary statements**

Hazard Pictogram(s):



Signal Word: Danger

Hazard Statements:

H302 + H332 Harmful if swallowed or if inhaled
H311 Toxic in contact with skin
H314 Causes severe skin burns and eye damage
H335 May cause respiratory irritation

Precautionary Statements

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Hazards Not Otherwise Classified: Rapidly absorbed through skin.

Section 4 – First-Aid Measures

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact: Wash off with soap and plenty of water. Consult a physician.

Ingestion: If swallowed, never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Notes to physician: No specific treatment. Treat symptomatically.

Section 5 – Employee Protection

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture: Carbon oxides

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary

Further information: Use water spray to cool unopened containers.

Section 6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and Materials for Containment and Cleaning up: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations. Keep in suitable, closed containers for disposal.

Section 7 – Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage, including any incompatibilities

Store in cool place. 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. Storage class (TRGS 510): Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects.

Section 8 – Exposure Controls/Personal Protection (later)

Exposure Limits/Guidelines: No data available

Engineering controls: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal Protective Equipment

Eye/face protection: Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: 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 and good laboratory practices. Wash and dry hands. Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9 – Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state : Liquid

Colour : Clear Colorless.

Odour : repulsive.

Odour threshold : No data available

pH : No data available

Relative evaporation rate (butylacetate=1) : No data available

Melting point : 12 – 16

Freezing point : No data available

Boiling point : 163 °C

Flash point : 77 °C

Auto-ignition temperature : 365 °C

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapour pressure : 0.975 mm Hg (at 20°C)

Relative vapour density at 20 °C : 2.97

Relative density : No data available

Density : 1.015 g/cm³

Solubility : Water: Insoluble in water

Log Pow : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidising properties : No data available

Explosive limits : 0.016 - 0.081 vol %

Other data

No data available

Section 10 – Stability and Reactivity

Reactivity: Thermal decomposition generates : Corrosive vapours.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: No data available

Conditions to Avoid: Heat, flames and sparks.

Incompatible Materials: Amines, Strong bases, Strong acids, Oxidizing agents, Peroxides

Hazardous Decomposition Products: Thermal decomposition generates : Corrosive vapours.

Hazardous polymerization: Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section 11 – Toxicological Information

Acute toxicity: Dermal: Harmful in contact with skin. Oral: Harmful if swallowed.

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/irritation: Causes serious eye damage.

Carcinogenicity: Not listed by ACGIH, IARC, NTP, or CA Prop 65..

Reproductive toxicity: No data available

Specific target organ toxicity following single exposure: May cause respiratory irritation.(2-Methylpropenoic acid)

Specific target organ toxicity following repeated exposure: No data available

Aspiration hazard: No data available

Potential health effects

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. Based on single exposure animal tests, it is considered to be no more than slightly toxic if swallowed, no more than moderately toxic if absorbed through skin, practically non-toxic if inhaled and corrosive to eyes and skin. Exposure to vapor may cause severe respiratory tract irritation.

Interaction with Other Chemicals Which Enhance Toxicity: None known.

Additional Information RTECS: OZ2975000

Section 12 – Ecological Information

Toxicity: No data available

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Results of PBT and vPvB assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects: Harmful to aquatic life.

Section 13 – Disposal Considerations

Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

Section 14 – Transport Information

In accordance with ADR / RID / IMDG / IATA / AND:

UN: 2531

Proper Shipping Name: METHACRYLIC ACID, STABILIZED

Transport document description: UN 2531 METHACRYLIC ACID, STABILIZED, 8, II

Additional Information:

No data available

Section 15 – Regulatory Information

1. US Federal regulations

TSCA: CAS# 79-41-4 is listed on the TSCA inventory.

SARA Codes: CAS # 79-41-4: immediate, fire, reactive.

SARA 313: No chemicals are reportable under Section 313.

2. International regulations

CANADA

CAS# 79-41-4 is listed on Canada's DSL List.

This product has a WHMIS classification of E, D1B, B3.

CAS# 79-41-4 is listed on the Canadian Ingredient Disclosure List.

EU-Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

C

Risk Phrases:

R 21/22 Harmful in contact with skin and if swallowed.

R 35 Causes severe burns.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 79-41-4: 1

3. National regulations

No data available

4. US State regulations**METHACRYLIC ACID**

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|----------------------------|--|
| State or local regulations | U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - California - Right To Know List U.S. - Minnesota - Right To Know List |
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Section 16 - Additional Information**References:** Not available.**Other Special Considerations:** Not available.

The information above is believed to be accurate and represents the best information currently available to us. However, 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 purposes. In no way shall Tradeasia International Pte. Ltd. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Tradeasia International Pte. Ltd. has been advised of the possibility of such damages.