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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product: Methacrylic Acid	**Revision date:** 2026-10-29	**Version:** 1.0	**Brand:** Richest

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

Product name	Methacrylic Acid
Synonyms	2-Methylpropenoic acid; 2-Methacrylic acid; alpha-Methacrylic acid
CAS No.	79-41-4
EC No.	201-204-4
Molecular formula	C4H6O2
Molecular weight	86.09 g/mol
Relevant identified uses	Monomer for manufacturing resins and plastics; raw material for methacrylate esters, coatings, adhesives and textile finishing agents; industrial raw material
Uses advised against	None
Company	Richest Group Ltd.
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SECTION 2: Hazards identification

GHS Classification	Acute toxicity - Oral Category 4 Acute toxicity - Inhalation Category 4 Acute toxicity - Dermal Category 3 Skin corrosion Category 1A Serious eye damage Category 1 Specific target organ toxicity - single exposure Category 3 (Respiratory system)
Pictogram(s)	GHS05 (Corrosion), GHS06 (Skull and crossbones), GHS07 (Exclamation
Signal word	Danger

Hazard statement(s)	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 statement(s)	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. 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.
Other hazards	None known.

SECTION 3: Composition/information on ingredients

Component	Methacrylic acid
CAS No.	79-41-4
EC No.	201-204-4
Classification	Acute Tox. 4; Acute Tox. 3; Skin Corr. 1A; Eye Dam. 1; STOT SE 3; H302, H332, H311, H314, H318, H335
Concentration (%)	≤100 %

SECTION 4: First aid measures

If inhaled	After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.
In case of skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.
In case of eye contact	After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
If swallowed	After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.
Most important symptoms and effects	Causes severe skin burns and eye damage; toxic in contact with skin; may cause respiratory irritation, cough, shortness of breath, headache, nausea; extremely destructive to tissue of the mucous membranes and upper
Indication of any immediate medical attention	First aiders need to protect themselves. Show this safety data sheet to the doctor in attendance. Call a physician immediately.

SECTION 5: Firefighting measures	
Suitable extinguishing media	Water, foam, carbon dioxide (CO2), dry powder
Unsuitable extinguishing media	None (no limitations of extinguishing agents are given for this substance).
Special hazards arising from the chemical	Carbon oxides. Combustible. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.
Advice for firefighters	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures	
Personal precautions, protective equipment and emergency procedures	Do not breathe vapours/aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.
Environmental precautions	Do not let product enter drains.
Methods and materials for containment and cleaning up	Cover drains. Collect, bind, and pump off spills. Take up carefully with liquid-absorbent material. Dispose of properly. Clean up affected area.

SECTION 7: Handling and storage	
Precautions for safe handling	Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Immediately change contaminated clothing. Wash hands and face after working with substance.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Keep away from direct sunlight and heat.

SECTION 8: Exposure controls/personal protection	
Occupational exposure limit values	ACGIH TLV: TWA 20 ppm (70 mg/m3); China PC-TWA: 70 mg/m3
Biological limit values	None established.
Appropriate engineering controls	Ensure adequate ventilation; work under hood. Handle in accordance with good industrial hygiene and safety practice.
Eye/face protection	Tightly fitting safety goggles. Use equipment for eye protection tested and

	approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection	Handle with gloves. Full contact: butyl rubber, minimum layer thickness 0.7 mm, breakthrough time 480 min. Splash contact: nitrile rubber, minimum layer thickness 0.4 mm, breakthrough time 120 min (EN 374).
Body protection	Protective clothing.
Respiratory protection	Recommended filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds.
Thermal hazards	None known.

SECTION 9: Physical and chemical properties

Physical state	Liquid
Colour	Colourless
Odour	Pungent, unpleasant odour (stench)
Melting point / freezing point	12-16 °C (lit.)
Boiling point or initial boiling point and boiling range	163 °C (lit.)
Flammability	Combustible liquid.
Lower and upper explosion limit / flammability limit	Lower explosion limit: 1.6 % (V); Upper explosion limit: 8.8 % (V)
Flash point	67 °C - closed cup
Auto-ignition temperature	400 °C at 1013 hPa
Decomposition temperature	No data available
pH	Acidic (pKa 4.66 at 25 °C)
Kinematic viscosity	ca. 1.36 mm2/s at 25 °C (dynamic viscosity: 1.38 mPa.s at 25 °C)
Solubility	Water solubility: 98 g/l at 20 °C (OECD 105); soluble in ethanol and most organic solvents
Partition coefficient n-octanol/water	log Pow: 0.93 at 22 °C
Vapour pressure	0.97 hPa at 20 °C (lit.)
Density and/or relative density	1.015 g/cm3 at 25 °C (lit.)
Relative vapour density	2.97 (Air = 1.0)
Particle characteristics	Not applicable (liquid)

SECTION 10: Stability and reactivity	
Reactivity	Forms explosive mixtures with air on intense heating.
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature).
Possibility of hazardous reactions	Risk of explosion with: furfuryl alcohol, hydrochloric acid. Violent reactions possible with: amines, azides, aldehydes, acid anhydrides, acid chlorides, alkaline earth hydroxides, alkali hydroxides, bases, ethers, heavy metal salts, heavy metals, ketones, mineral acids, nitric acid, nitro compounds, nitrates, nitrites, reducing agents, strong oxidizing agents, strong acids. Violent polymerization may be caused by: iron/iron-containing compounds, peroxides, persulfates, hydrogen peroxide, impurities.
Conditions to avoid	Heat. Keep away from direct sunlight. Strong heating.
Incompatible materials	Strong oxidizing agents, strong acids, bases, amines, peroxides, persulfates, heavy metals and their salts
Hazardous decomposition products	Carbon oxides (formed under fire conditions)

SECTION 11: Toxicological information	
Acute toxicity - Oral / Inhalation / Dermal	LD50 Oral - Rat - male - 1320 mg/kg (OECD 401) LC50 Inhalation - Rat - 4 h - 7.1 mg/l - dust/mist (OECD 403) LD50 Dermal - Rabbit - 500-1000 mg/kg (ECHA)
Skin corrosion/irritation	Skin - Rabbit: Causes severe burns - 3 min (OECD 404).
Serious eye damage/irritation	Eyes - Rabbit: Causes burns. Causes serious eye damage (OECD 405).
Respiratory or skin sensitization	Buehler Test - Guinea pig: negative (OECD 406).
Germ cell mutagenicity	Ames test (Salmonella typhimurium, with and without metabolic activation): negative (OECD 471).
Carcinogenicity	Not classifiable as to its carcinogenicity (not listed by IARC, NTP, ACGIH); no evidence of carcinogenicity in animal studies.
Reproductive toxicity	No evidence of reproductive or developmental toxicity in animal studies (ECHA).
STOT - single exposure	May cause respiratory irritation - Respiratory system.
STOT - repeated exposure	Not classified.
Aspiration hazard	Not classified.

SECTION 12: Ecological information	
Toxicity to fish / daphnia / algae	Toxicity to fish: LC50 - Oncorhynchus mykiss (rainbow trout) - 85 mg/l - 96 h (flow-through test) Toxicity to daphnia: EC50 - Daphnia magna (Water flea) -

	> 130 mg/l - 48 h Toxicity to algae: EC50 - Selenastrum capricornutum (green algae) - 45 mg/l - 72 h; NOEC - 8.2 mg/l - 72 h
Persistence and degradability	Biodegradability: 86 % - Readily biodegradable (OECD 301D).
Bioaccumulative potential	log Pow 0.93; low bioaccumulation potential (BCF ca. 3.2, estimated).
Mobility in soil	Estimated Koc ca. 24; high mobility in soil.
Other adverse effects	None known.

SECTION 13: Disposal considerations

Product disposal methods	Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with applicable national and local regulations. Leave chemicals in original containers. No mixing with other waste.
Contaminated packaging	Dispose of as unused product.

SECTION 14: Transport information

UN Number (ADR/RID, IMDG, IATA)	2531
UN Proper Shipping Name	METHACRYLIC ACID, STABILIZED
Transport hazard class(es)	8
Packing group	II
Environmental hazards (Marine pollutant)	ADR/RID: Yes; IMDG Marine pollutant: Yes; IATA: No
Special precautions for user	None known.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	EINECS: Listed (201-204-4) TSCA: Listed IECSC: Listed China Catalog of Hazardous Chemicals 2015: Listed

SECTION 16: Other information

Full text of H-Statements	H302 Harmful if swallowed. H302+H332 Harmful if swallowed or if inhaled. H311 Toxic in contact with skin. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H332 Harmful if inhaled. H335 May cause respiratory irritation.
Revision date	2026-10-29

Version	1.0

Abbreviations and acronyms: CAS: Chemical Abstracts Service; EC: European Commission; EINECS: European Inventory of Existing Commercial Chemical Substances; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; RID: Regulation concerning the International Carriage of Dangerous Goods by Rail; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; TWA: Time Weighted Average; STEL: Short Term Exposure Limit; LD50: Lethal Dose 50%; LC50: Lethal Concentration 50%; EC50: Effective Concentration 50%; PBT: Persistent, Bioaccumulative and Toxic; vPvB: very Persistent and very Bioaccumulative; SDS: Safety Data Sheet.

References: ECHA - European Chemicals Agency, https://echa.europa.eu/; IPCS - International Chemical Safety Cards (ICSC), http://www.ilo.org/; HSDB - Hazardous Substances Data Bank; eChemPortal - OECD Global Portal to Information on Chemical Substances; ERG - Emergency Response Guidebook by U.S. DOT.

Disclaimer: The information in this SDS is only applicable to the specified product and is provided in good faith. It is based on the knowledge available to Richest Group Ltd. at the date of issue and is intended to describe the product for the purposes of health, safety and environmental requirements only. It does not constitute any guarantee of the properties of the product. Richest Group Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.