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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product	Ethyl Methacrylate (EMA)	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

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

Product name	Ethyl Methacrylate (EMA)
Synonyms	Ethyl methacrylate; 97-63-2; ethyl 2-methylprop-2-enoate; 2-Propenoic acid, 2-methyl-, ethyl ester; Ethyl 2-methylacrylate; Ethyl 2-methacrylate
CAS No.	97-63-2
EC No.	202-597-5
Molecular formula	C6H10O2
Molecular weight	114.14 g/mol
Relevant identified uses	Laboratory chemicals and manufacture of substances.
Uses advised against	No specific uses advised against were identified in the reviewed sources.
Company	Richest Group
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SECTION 2: Hazards identification

GHS Classification	Flammable liquids Category 2; Skin irritation Category 2; Eye irritation Category 2; Skin sensitisation Category 1; Specific target organ toxicity—single exposure Category 3, respiratory system
Pictogram(s)	GHS02; GHS07
Signal word	Danger
Hazard statement(s)	H225 Highly flammable liquid and vapour; H315 Causes skin irritation; H319 Causes serious eye irritation; H317 May cause an allergic skin reaction; H335 May cause respiratory irritation
Precautionary statement(s)	P210; P261; P280; P305+P351+P338
Other hazards	A skin, eye, and respiratory tract irritant; Can cause skin sensitization; Causes lachrymation; [ICSC] Reports of occupational contact dermatitis; A lachrymator; Inhalation of high vapor concentrations may cause symptoms of CNS depression; [HSDB] An irritant and lachrymator; May cause skin sensitization; [Aldrich MSDS] Occupational asthma reported in cosmetologists; [Reference #1] Ethyl...

SECTION 3: Composition/information on ingredients

Component	Ethyl Methacrylate (EMA)
CAS No.	97-63-2

SECTION 3: Composition/information on ingredients

EC No.	202-597-5
Classification	Flammable liquids Category 2; Skin irritation Category 2; Eye irritation Category 2; Skin sensitisation Category 1; Specific target organ toxicity—single exposure Category 3, respiratory system
Concentration	≥99.0%

SECTION 4: First-aid measures

If inhaled	IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere.
In case of skin contact	IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, IMMEDIATELY call a physician and be prepared to transport the victim to a hospital for treatment.
In case of eye contact	First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.
If swallowed	DO NOT INDUCE VOMITING. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. Be prepared to transport the victim to a hospital if advised by a physician. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. DO NOT INDUCE VOMITING.
Most important symptoms and effects	No data available
Indication of immediate medical attention	Treat symptomatically. Show this safety data sheet to medical personnel.

SECTION 5: Fire-fighting measures

Suitable extinguishing media	Evacuation: If fire becomes uncontrollable or container is exposed to direct flame, consider evacuation of 1/3 mile radius.
Unsuitable extinguishing media	No data available
Special hazards arising from the chemical	· HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
Advice for firefighters	Excerpt from ERG Guide 130 [Flammable Liquids (Water-Immiscible / Noxious); polymerization hazard]:

SECTION 6: Accidental release measures

Personal precautions and emergency procedures	Avoid contact with the material. Ensure adequate ventilation. Wear appropriate personal protective equipment.
Environmental precautions	Prevent uncontrolled release to drains, soil and watercourses.

SECTION 6: Accidental release measures

Methods for containment and cleaning up	Remove all ignition sources. Evacuate danger area! Consult an expert! Personal protection: chemical protection suit and filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Ventilation. Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

SECTION 7: Handling and storage

Precautions for safe handling	Avoid contact with skin and eyes. Avoid formation or inhalation of dust, mist or vapour as applicable. Wash thoroughly after handling.
Conditions for safe storage, including incompatibilities	Store cool at 2–8°C; keep container tightly closed in a dry, well-ventilated place; reseal and keep upright; light and heat sensitive.

SECTION 8: Exposure controls/personal protection

Occupational exposure limit values	No data available
Biological limit values	No biological limit values were identified in the reviewed sources.
Appropriate engineering controls	Provide adequate ventilation. Eyewash facilities should be available where contact is possible.
Eye/face protection	Impervious gloves; splash goggles; self-contained breathing apparatus if exposed to vapors; coveralls (USCG, 1999)
Skin and body protection	Impervious gloves; splash goggles; self-contained breathing apparatus if exposed to vapors; coveralls (USCG, 1999)
Respiratory protection	Use suitable respiratory protection if exposure limits may be exceeded or dust, mist or vapour is generated.
Thermal hazards	No specific thermal hazards were identified in the reviewed sources; see Sections 5 and 10.

SECTION 9: Physical and chemical properties

Physical state	Clear, colorless liquid
Colour	Colorless, liquid
Odour	Acrid odor
Melting point / freezing point	-59.99°C
Boiling point / boiling range	118–119°C
Flammability	· HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
Explosion / flammability limits	LEL: 1.8 % (NTP, 1992); UEL: No data available
Flash point	19°C, closed cup
Auto-ignition temperature	393 °C
Decomposition temperature	No data available
pH	No data available
Viscosity	0.92 mPa (cP)
Solubility	4.69 g/L at 20°C
Partition coefficient n-octanol/water	1.87 at 20°C

SECTION 9: Physical and chemical properties	
Vapour pressure	20 hPa at 20°C
Density and/or relative density	0.917 g/cm3 at 25°C
Relative vapour density	3.94 (NTP, 1992) - Heavier than air; will sink (Relative to Air)
Particle characteristics	Not applicable (liquid).
Lower explosion limit	1.8%(V)
Refractive index	Index of refraction: 1.4147 at 20 °C/D

SECTION 10: Stability and reactivity	
Reactivity	Highly flammable. A very dangerous fire and explosion hazard. Not soluble in water.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	May polymerize if heated for prolonged periods or accidentally contaminated. If polymerization takes place inside a container, the container may violently rupture. Can react with oxidizing materials. When heated to decomposition it emits irritating fumes and acrid smoke [Sax, 9th ed., 1996, p. 1576].
Conditions to avoid	NO open flames, NO sparks and NO smoking. NO contact with strong oxidizing agents. Closed system, ventilation, explosion-proof electrical equipment and lighting.
Incompatible materials	Forms explosive mixture with air. Incompatible with strong acids, amines, ozidizers. Corrodes some metals.
Hazardous decomposition products	When heated to decomposition, it emits acrid smoke and irritating fumes.

SECTION 11: Toxicological information	
Skin corrosion irritation	GHS classification: Skin irritation Category 2
Serious eye damage irritation	GHS classification: Eye irritation Category 2
Sensitization	GHS classification: Skin sensitisation Category 1
Acute toxicity	LD50 Rabbit dermal >9.1 g/kg; LD50 Rat oral 14,800 mg/kg; LC50 Rat inhalation 8300 ppm/4 hr; LC50 Rat inhalation 11,605 ppm (55 mg/L)/4 hr (OECD 403)
Toxicological summary	Safe for use in cosmetics, with qualifications
Health effects	Inhalation may cause irritation of the mucous membrane. Ingestion causes irritation of mouth and stomach. Contact with liquid irritates eyes and skin. (USCG, 1999)

SECTION 12: Ecological information	
Ecotoxicity	EC50; Species: Brachionus calyciflorus (Rotifer, age <2 hr); Conditions: freshwater, static, 25 °C, pH 7.5; Concentration: 250 mg/L for 48 hr (95% confidence interval: 0-620 mg/L); Effect: decreased reproduction (progeny count/ numbers) /99.1% purity/; LC50; Species: Oncorhynchus mykiss (Rainbow trout); Conditions: flow-through; Concentration: 100 mg/L for 96 hr
Persistence degradability	AEROBIC: In a Closed Bottle test, ethyl methacrylate released 69% of theoretical carbon dioxide evolution after 28 days(1). Ethyl methacrylate has been listed as being "well biodegradable" in the Japanese MITI test which utilizes 100 ppm test compound incubated at 25 °C for 2 weeks in activated sludge at 30 ppm(2).
Bioaccumulative potential	An estimated BCF of 9 was calculated in fish for ethyl methacrylate(SRC), using a log Kow of 1.94(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

SECTION 12: Ecological information

Mobility in soil	Using a structure estimation method based on molecular connectivity indices(1), the Koc of ethyl methacrylate can be estimated to be 17(SRC). According to a classification scheme(2), this estimated Koc value suggests that ethyl acrylate is expected to have very high mobility in soil.
Other adverse effects	The rate constant for the vapor-phase reaction of ethyl methacrylate with photochemically-produced hydroxyl radicals has been estimated as 2.0X10-11 cu cm/molecule-sec at 25 °C(SRC) using a structure estimation method(1). This corresponds to an atmospheric half-life of about 19 hours at an atmospheric concentration of 5X10+5 hydroxyl radicals per cu cm(1).
Environmental fate	TERRESTRIAL FATE: Based on a classification scheme(1), an estimated Koc value of 17(SRC), determined from a structure estimation method(2), indicates that ethyl methacrylate is expected to have very high mobility in soil(SRC).

SECTION 13: Disposal considerations

Product disposal methods	A good candidate for fluidized bed incineration at a temperature range of 450 to 980 °C and residence times of seconds for liquids and gases, and longer for solids. A good candidate for rotary kiln incineration at a temperature range of 820 to 1,600 °C and residence times of seconds for liquids and gases, and hours for solids.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with local regulations.

SECTION 14: Transport information

UN Number (ADR/RID, IMDG, IATA)	2277
UN Proper Shipping Name	ETHYL METHACRYLATE, STABILIZED
Transport hazard class(es)	3
Packing group	II
Environmental hazards / Marine pollutant	ADR/RID: no; IMDG marine pollutant: no; IATA: no
Special precautions for user	Keep containers closed and secured during transport. Follow applicable dangerous goods regulations.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	No data available

SECTION 16: Other information

Full text of H-Statements	H225 Highly flammable liquid and vapour; H315 Causes skin irritation; H319 Causes serious eye irritation; H317 May cause an allergic skin reaction; H335 May cause respiratory irritation
Revision date	2026-11-16
Version	1.0
References	Supplier technical documents, public SDS/COA/TDS and regulatory sources reviewed. Public data citations are listed below. Public data sources: PubChem Ethyl Methacrylate (CID 7343): https://pubchem.ncbi.nlm.nih.gov/compound/7343

SECTION 16: Other information

Abbreviations	CAS: Chemical Abstracts Service; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; SDS: Safety Data Sheet.
Disclaimer	The information in this SDS applies to the specified product and is provided in good faith based on information available to Richest Group at the date of issue. It describes health, safety and environmental requirements and does not constitute a guarantee of product properties. Users must assess suitability and comply with applicable regulations.