

***MATERIAL SAFETY DATA SHEET**

METHYL ACRYLATE

(For Synthesis)

MSDS CAS : 96-33-3

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product

Product Name : METHYL ACRYLATE

CAS#: 96-33-3

C.I. No.: Not available.

Synonym : 2-Propenoic Acid

Chemical Name: Methyl Acrylate

Chemical Formula: C4-H6-O2

Brand: OXFORD

Details Of The Supplier Of The Safety Data Sheet:

Company identification: **OXFORD LAB FINE CHEM LLP**
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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
METHYL ACRYLATE	96-33-3	100

Toxicological Data on Ingredients : Methyl Acrylate: ORAL (LD50): Acute: 277 mg/kg [Rat]. 827 mg/kg [Mouse]. DERMAL (LD50): Acute: 1243 mg/kg [Rabbit].

Section 3: Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of skin contact (irritant), of eye contact (irritant). Hazardous in case of inhalation. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC. **MUTAGENIC EFFECTS:** Not available. **TERATOGENIC EFFECTS:** Not available. **DEVELOPMENTAL TOXICITY:** Not available. The substance may be toxic to blood, kidneys, lungs, brain, gastrointestinal tract, upper respiratory tract, skin, eyes, Metabolism, Urinary, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. WARM water MUST be used. Get medical attention immediately.

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion:

Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Flammable.

Auto-Ignition Temperature: 468°C (874.4°F)

Flash Points: CLOSED CUP: -3.89°C (25°F). OPEN CUP: -3°C (26.6°F).

Flammable Limits: LOWER: 2.8% UPPER: 25%

Products of Combustion: These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances: Highly flammable in presence of open flames and sparks, of heat.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: VAPOR FORMS EXPLOSIVE MIXTURE IN AIR.

Section 6: Accidental Release Measures

Small Spill:

Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill:

Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk.

Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, alkalis.

Section 7: Handling and Storage (Continued)

Storage:

Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Do not store above 21°C (69.8°F).

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:

Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 2 (ppm) from ACGIH (TLV) [United States] [1998] SKIN TWA: 10 (ppm) [Australia] [1993] SKIN TWA: 10 [Israel] Inhalation TWA: 10 (ppm) from NIOSH SKIN TWA: 10 (ppm) from OSHA (PEL) [United States] SKIN Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance	: Liquid.
Odor	: Acrid
Taste	: Not available.
Molecular Weight	: 86.09 g/mole
Color	: Colorless.
pH (1% soln/water)	: Not available.
Boiling Point	: 80.5°C (176.9°F)
Melting Point	: -76.5°C (-105.7°F)
Critical Temperature	: 263°C (505.4°F)
Specific Gravity	: 0.9561 (Water = 1)
Vapor Pressure	: Not available.

Section 9: Physical and Chemical Properties (Continued)

Vapor Density	: 2.97 (Air = 1)
Volatility	: Not available.
Odor Threshold	: 20 ppm
Water/Oil Dist. Coeff.	: Not available.
Ionicity (in Water)	: Not available.
Dispersion Properties	: Partially dispersed in methanol, diethyl ether, n-octanol. Very slightly dispersed in cold water, hot water. See solubility in methanol, diethyl ether, n-octanol, acetone.
Solubility	: Partially soluble in methanol, diethyl ether, n-octanol, acetone. Very slightly soluble in cold water, hot water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Reactive with oxidizing agents, alkalis.

Corrosivity: Not available.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact. Inhalation.

Toxicity to Animals: Acute oral toxicity (LD50): 277 mg/kg [Rat]. Acute dermal toxicity (LD50): 1243 mg/kg [Rabbit].

Chronic Effects on Humans: CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC. May cause damage to the following organs: blood, kidneys, lungs, brain, gastrointestinal tract, upper respiratory tract, skin, eyes, Metabolism, Urinary, central nervous system (CNS).

Other Toxic Effects on Humans: Very hazardous in case of skin contact (irritant). Hazardous in case of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Section 11: Toxicological Information (Continued)

Special Remarks on other Toxic Effects on Humans: Not available.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste treatment

Section 14: Transport Information

Land transport (ADR-RID)

Proper shipping name	: METHYL ACRYLATE, STABILIZED
UN N°	: 1919
H.I. nr	: 339
ADR - Class	: 3
Labelling - Transport	: 3 : Flammable liquid
ADR - Group	: II

Sea transport (IMDG) [English only]

Proper shipping name	: METHYL ACRYLATE, STABILIZED
UN N°	: 1919
IMO-IMDG - Class or division	: 3 : Flammable liquid
IMO-IMDG - Packing group	: II

Section 14: Transport Information (Continued)

Air transport (ICAO-IATA) [English only]

Proper shipping name	: METHYL ACRYLATE, STABILIZED
UN N°	: 1919
IATA - Class or division	: 3 : Flammable liquid
IATA - Packing group	: II

Section 15: Other Regulatory Information

Federal and State Regulations: Rhode Island RTK hazardous substances: Methyl Acrylate Pennsylvania RTK: Methyl Acrylate Florida: Methyl Acrylate Minnesota: Methyl Acrylate Massachusetts RTK: Methyl Acrylate New Jersey: Methyl Acrylate TSCA 8(b) inventory: Methyl Acrylate TSCA 8(a) PAIR: Methyl Acrylate SARA 313 toxic chemical notification and release reporting: Methyl Acrylate

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC): R11- Highly flammable. R21/22- Harmful in contact with skin and if swallowed. R38- Irritating to skin. R41- Risk of serious damage to eyes.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 3

Reactivity: 1

Personal Protection: H

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 3

Reactivity: 2

Specific hazard:

Protective Equipment: Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

Disclaimer:

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