

MSDS

Material Safety Data Sheets

Material Safety Data Sheet

Methyl acetate

1. Chemical Product Identification

Product Name: Methyl acetate

CAS#: 79-20-9

Supplier: Zista Group

Chemical Name: Methyl acetate

Chemical Formula: CH₃COOCH₃

2. Composition/Information on Ingredients

- **Composition:**

Name	CAS #	% by Weight
Methyl Acetate	79-20-9	100

- **Toxicological Data on Ingredients:** Methyl acetate: ORAL (LD50): Acute: 5001 mg/kg [Rat]. DERMAL (LD50): Acute: 5001 mg/kg [Rabbit].

3. Hazards Identification

- **Potential Acute Health Effects:** Very hazardous in case of skin contact (permeator), of eye contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.
- **Potential Chronic Health Effect:** CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs. Repeated or prolonged exposure to the substance can produce target organs damage.

4. First Aid Measures

- **Eye Contact:** Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

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- **Skin Contact:** After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.
- **Serious Skin Contact:** Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.
- **Inhalation:** Allow the victim to rest in a well-ventilated area. Seek immediate 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. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
- **Serious Ingestion:** Not available.

5. Fire-fighting Measures

- **Flammability of the Product:** Flammable.
- **Auto-Ignition Temperature:** 501.67°C (935°F)
- **Flash Points: CLOSED CUP:** -10°C (14°F). **OPEN CUP:** -5.56°C (22°F) (Cleveland).
- **Flammable Limits:** LOWER: 3.1% UPPER: 16%
- **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, of oxidizing materials.
- **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.

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SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use alcohol foam, water spray or fog.

- **Special Remarks on Fire Hazards:** May explode when heated. Vapor may travel considerable distance to source of ignition and flash back. When heated to decomposition it emits acrid smoke and fumes.
- **Special Remarks on Explosion Hazards:** Not available.

6. Accidental Release Measures

- **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. Eliminate all ignition sources. Be careful that the product is not present at a concentration level above TLV.
- **Small Spill:** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

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, acids, alkalis, moisture.
- **Storage:** Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Ground all equipment containing material. A refrigerated room would be preferable for materials with a flash point lower than 37.8°C (100°F).

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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 workstation 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: 200 CEIL: 250 (ppm) from ACGIH (TLV) TWA: 610 CEIL: 760 (mg/m³) from ACGIH Consult local authorities for acceptable exposure limits.

9. Physical and Chemical Properties

Physical state	<i>Liquid.</i>
Odor	<i>Fragrance like</i>
Molecular Weight	<i>74.08 g/mole</i>
Color	<i>Colorless</i>
pH (1% soln/water)	<i>7 [Neutral.]</i>
Boiling Point	<i>57°C (134.6°F)</i>
Melting Point	<i>-98.05°C (-144.5°F)</i>
Critical Temperature	<i>Not available.</i>
Specific Gravity	<i>0.92 (Water = 1)</i>
Vapor Pressure	<i>173 mm of Hg (@ 20°C)</i>
Vapor Density	<i>2.8 (Air = 1)</i>
Dispersion Properties	<i>See solubility in water, methanol, diethyl ether.</i>
Solubility	<i>Easily soluble in methanol, diethyl ether. Soluble in cold water, hot water.</i>

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10. Stability and Reactivity

- **Stability:** The product is stable.
- **Instability Temperature:** Not available
- **Conditions of Instability:** Not available.
- **Incompatibility with various substances:** Reactive with oxidizing agents, acids, alkalis, moisture.
- **Corrosivity:** Non-corrosive in presence of glass.
- **Special Remarks on Reactivity:** Not available.
- **Special Remarks on Corrosivity:** Not available.
- **Polymerization:** No.

11. Toxicological Information

- **Routes of Entry:** Dermal contact. Eye contact. Inhalation. Ingestion.
- **Toxicity to Animals:** Acute oral toxicity (LD50): 5001 mg/kg [. Rat]. Acute dermal toxicity (LD50): 5001 mg/kg [Rabbit].
- **Chronic Effects on Humans:** The substance is toxic to lungs.
- **Other Toxic Effects on Humans:** Very hazardous in case of skin contact (permeator), of ingestion, of inhalation. Hazardous in case of skin contact (irritant).
- **Special Remarks on Toxicity to Animals:** Not available.
- **Special Remarks on Chronic Effects on Humans:** Not available.
- **Special Remarks on other Toxic Effects on Humans:** Exposure can cause nausea, headache and vomiting. Material is irritating to mucous membranes and upper respiratory tract.

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 more toxic.

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- **Special Remarks on the Products of Biodegradation:** Not available.

13. Disposal Considerations

- **Waste Disposal**

14. Transport Information

- **DOT Classification:** Class 3: Flammable liquid.
- **Identification:** : Methyl acetate : UN1231 PG: II
- **Special Provisions for Transport:** Not available.

15. Regulatory Information

- **Federal and State Regulations:** Pennsylvania RTK: Methyl acetate Massachusetts RTK: Methyl acetate TSCA 8(b) inventory: Methyl acetate
- **Other regulations:** OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
- **Other Classifications:**
 - ✓ **WHMIS (Canada):** CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
 - ✓ **DSCL (EEC):** R11- Highly flammable. R38- Irritating to skin. R41- Risk of serious damage to eyes.

16. Other Information

References:

-Guide de la loi et du règlement sur le transport des marchandises dangereuses au Canada. Centre de conformité internationale Ltée. 1986. -Hawley, G.G.. The Condensed Chemical Dictionary, 11e ed., New York N.Y., Van Nostrand Reinold, 1987. -Material safety data sheet emitted by: la Commission de la Santé et de la Sécurité du Travail du Québec. -SAX, N.I. Dangerous Properties of Industrial Materials. Toronto, Van Nostrand Reinold, 6e ed. 1984. -The Sigma- Aldrich Library of Chemical Safety Data, Edition II.