

MATERIAL SAFETY DATA SHEET (MSDS)



# METHYL ACETATE

## 1. PRODUCT IDENTIFICATION:

**Synonyms:** Acetic acid methyl ester

**CAS No.:** 79-20-9

**Molecular Weight:** 74

**Chemical Formula:** CH<sub>3</sub>COOCH<sub>3</sub>

## COMPANY IDENTIFICATION:

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## 2. HAZARDS IDENTIFICATION:

OSHA/GHS:	Flammable liquids	Category 2
Hazards:	Eye irritation	Category 2
	Specific target organ toxicity single exposure	Category 3 (Central nervous system)

## LABEL ELEMENTS

Hazard symbols:



Signal word: Danger

### Hazard statements:

H225	Highly flammable liquid and vapor.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

### Precautionary statements:

#### Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear eye protection/ face protection.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P403 + P235	Store in a well-ventilated place. Keep cool.

#### Other Hazards:

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.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS:

Components	CAS-No.	Percent
Methyl Acetate	79-20-9	85-99%

#### 4. FIRST AID MEASURES:

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention.
Skin contact	Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	Aspiration hazard. If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately.

#### 5. FIRE FIGHTING MEASURES:

##### FLAMMABLE PROPERTIES:

Fire/explosion	Flash point: -10C (14F) CC Auto ignition temperature: 454C (849F) Flammable limits in air % by volume: lel: 3.1; uel: 16 Extremely Flammable. Dangerous fire hazard when exposed to heat, flame, or oxidizers. Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Sealed containers may rupture when heated. Sensitive to static discharge.
Suitable extinguishing media	Dry chemical, alcohol foam or carbon dioxide. Water may be ineffective. Water spray may be used to keep fire exposed containers cool. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures.
Protective equipment and precautions for firefighters	In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Vapors can flow along surfaces to distant ignition source and flash back. This highly flammable liquid must be kept from sparks, open flame, hot surfaces, and all sources of heat and ignition.
Further information	Use water spray to cool unopened containers.

## 6. ACCIDENTAL RELEASE MEASURES:

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 (see section 13).
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## 7. HANDLING AND STORAGE:

Safe handling advice	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.
Storage/Transport pressure	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).

## 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 PROTECTIVE EQUIPMENT:

Eyes	Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.
Skin	Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

### EXPOSURE GUIDELINES:

TWA: 200 CEIL: 250 (ppm) from ACGIH (TLV) TWA: 610 CEIL: 760 (mg/m<sup>3</sup>) from ACGIH Consult local authorities for acceptable exposure limits.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance	liquid
Color	Clear, colorless
Form	liquid
Odor	Pleasant, fruity odor
Odor Threshold	No data available
Flash point	-12,99 °C - closed cup
Flammability	Upper explosion limit: 16 %(V) Lower explosion limit: 3 %(V)
Boiling point/boiling range	58C (136F)
Melting point/range	-98.05°C (-144.5°F)
Auto-ignition temperature	454 °C at 1.013 hPa
Decomposition temperature	No data available
Flammability (solid, gas)	No data available
Vapor pressure	173 mm of Hg (@ 20°C)
Vapor density	2.6
Density	0.915 g/cm <sup>3</sup> @ 20 °C, 68 °F
Water solubility	319 g/l at 20 °C
Viscosity	No data available
pH	7 [Neutral.]
Evaporation rate	No data available
Partition coefficient: n-octanol/water	log Pow: 0,18

## 10. STABILITY AND REACTIVITY

### Stability:

The product is stable. Stable at room temperature in sealed containers.

### Hazardous Decomposition Products:

Carbon dioxide and carbon monoxide may form when heated to decomposition.

### Hazardous Polymerization:

Will not occur.

### Incompatibilities:

Nitrates, strong oxidizers, alkalis, and acids. Reacts slowly with water to form acetic acid

### Conditions to Avoid:

Heat, flames, ignition sources and incompatibles.

## 11. TOXICOLOGICAL INFORMATION:

Oral rabbit LD50: > 5 gm/kg. Skin rabbit LD50: > 5 gm/kg. Irritation data: Skin rabbit (Standard Draize) 500 mg/24H, mild. Eye rabbit (Standard Draize) 100 mg/24H, moderate.

## 12. ECOLOGICAL INFORMATION:

### Environmental Fate:

When released into the soil, this material may leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released into water, this material may biodegrade to a moderate extent. When released to water, this material is expected to quickly evaporate. This material has an estimated bioconcentration factor (BCF) of less than 100. This material is not expected to significantly bioaccumulate.

When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition. When released into the air, this material is expected to have a half-life of greater than 30 days.

### Environmental Toxicity:

This material is not expected to be toxic to aquatic life. The LC50/96-hour values for fish are over 100 mg/l.

## 13. DISPOSAL CONSIDERATIONS:

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. TRANSPORT INFORMATION:

DOT	Proper Shipping Name: METHYL ACETATE Hazard Class: 3 UN/NA: UN1231 Packing Group: II Information reported for product/size: 2.5L
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## 15. OTERE INFORMATION:

**NFPA Ratings:** Health: 1 Flammability: 3 Reactivity: 0

### Label Hazard Warning:

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. HARMFUL OR FATAL IF SWALLOWED. AFFECTS CENTRAL NERVOUS SYSTEM.

### Label Precautions:

Keep away from heat, sparks and flame.  
Keep container closed.  
Avoid breathing vapor.  
Use only with adequate ventilation.  
Avoid contact with eyes, skin and clothing.

Wash thoroughly after handling.

**Label First Aid:**

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Aspiration hazard. If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately. In all cases, get medical attention



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