Material Safety Data Sheet
Methyl acetate

ACC# 14240

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Methyl acetate  
**Catalog Numbers:** AC181380000, AC181380010, AC181380025, AC371830000, AC371830010, AC371830025, AC371831000, M203-4, M203-500  
**Synonyms:** Acetic acid, methyl ester; Methyl ethanoate.  
**Company Identification:**  
Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410  
**For information, call:** 201-796-7100  
**Emergency Number:** 201-796-7100  
**For CHEMTREC assistance, call:** 800-424-9300  
**For International CHEMTREC assistance, call:** 703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>79-20-9</td>
<td>Methyl acetate</td>
<td>&gt;99</td>
<td>201-185-2</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: colorless liquid. Flash Point: -10 deg C.  
**Danger!** Extremely flammable liquid and vapor. Vapor may cause flash fire. Causes eye irritation. Breathing vapors may cause drowsiness and dizziness. Repeated exposure may cause skin dryness or cracking.  
**Target Organs:** Central nervous system, eyes, skin.

**Potential Health Effects**  
**Eye:** Causes eye irritation.  
**Skin:** Repeated or prolonged exposure may cause drying and cracking of the skin. A single prolonged skin exposure is not likely to result in the material being absorbed in harmful amounts.  
**Ingestion:** May cause irritation of the digestive tract. Exposure may cause optic nerve degeneration and possible  
**Inhalation:** Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. May cause narcotic effects in high concentration. Exposure may produce optic nerve damage and possible blindness. Overexposure may lead to convulsions, shortness of breath, and stupor.  
**Chronic:** Chronic inhalation may cause effects similar to those of acute inhalation.

Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.  
**Skin:** Get medical aid if irritation develops or persists. Flush skin with plenty of soap and water.  
**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.  
**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If
breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Extremely flammable liquid and vapor. Vapor may cause flash fire. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.

Extinguishing Media: Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide. Water may be ineffective.

Flash Point: -10 deg C (14.00 deg F)
Autoignition Temperature: 454 deg C (849.20 deg F)
Explosion Limits, Lower: 3.1 vol %
Upper: 16.0 vol %
NFPA Rating: (estimated) Health: 2; Flammability: 3; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Keep away from heat, sparks and flame. Avoid breathing vapor or mist.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl acetate</td>
<td>200 ppm TWA; 250 ppm STEL</td>
<td>200 ppm TWA; 610 mg/m3 TWA 3100 ppm IDLH</td>
<td>200 ppm TWA; 610 mg/m3 TWA</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Methyl acetate: 200 ppm TWA; 610 mg/m3 TWA

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or
Section 9 - Physical and Chemical Properties

**Physical State:** Liquid
**Appearance:** colorless
**Odor:** Pleasant odor
**pH:** Not available.
**Vapor Pressure:** 220 mbar @ 20 deg C
**Vapor Density:** 2.8 (air=1)
**Evaporation Rate:** 11.8 (butyl acetate=1)
**Viscosity:** 0.38 mPas 20 deg C
**Boiling Point:** 57.4 deg C @ 760 mmHg
**Freezing/Melting Point:** -98 deg C
**Decomposition Temperature:** Not available.
**Solubility:** 250 g/l (20°C)
**Specific Gravity/Density:** 0.9300 g/cm3
**Molecular Formula:** C3H6O2
**Molecular Weight:** 74.08

Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.
**Conditions to Avoid:** Ignition sources, confined spaces.
**Incompatibilities with Other Materials:** Strong oxidizing agents, strong acids, strong bases.
**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.
**Hazardous Polymerization:** Will not occur.

Section 11 - Toxicological Information

**RTECS#:**
**CAS# 79-20-9: AI9100000
LD50/LC50:**
**CAS# 79-20-9:**
- Dermal, guinea pig: LD50 = >20 mL/kg;
- Draize test, rabbit, eye: 100 mg/24H Moderate;
- Draize test, rabbit, skin: 500 mg/24H Mild;
- Draize test, rabbit, skin: 20 mg/24H Moderate;
- Oral, rabbit: LD50 = 3705 mg/kg;
- Oral, rat: LD50 = >5 gm/kg;
- Skin, rabbit: LD50 = >5 gm/kg;

**Carcinogenicity:**
**CAS# 79-20-9:** Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No data available.
**Teratogenicity:** No data available.
**Reproductive Effects:** No data available.
**Mutagenicity:** Mutation data has been reported.
**Neurotoxicity:** No data available.
**Other Studies:**
Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.
**RCRA U-Series:** None listed.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th></th>
<th>US DOT</th>
<th>Canada TDG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shipping Name:</strong></td>
<td>METHYL ACETATE</td>
<td>METHYL ACETATE</td>
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<tr>
<td><strong>Hazard Class:</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>UN Number:</strong></td>
<td>UN1231</td>
<td>UN1231</td>
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<tr>
<td><strong>Packing Group:</strong></td>
<td>II</td>
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</tr>
</tbody>
</table>

Section 15 - Regulatory Information

**US FEDERAL**

**TSCA**
- CAS# 79-20-9 is listed on the TSCA inventory.

**Health & Safety Reporting List**
- None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**
- CAS# 79-20-9: 40 CFR 799.5115

**Section 12b**
- CAS# 79-20-9: Section 4

**TSCA Significant New Use Rule**
- None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**
- None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**
- None of the chemicals in this product have a TPQ.

**SARA Codes**
- CAS # 79-20-9: immediate, fire.

**Section 313**
- No chemicals are reportable under Section 313.

**Clean Air Act:**
- This material does not contain any hazardous air pollutants.
- This material does not contain any Class 1 Ozone depleters.
- This material does not contain any Class 2 Ozone depleters.

**Clean Water Act:**
- None of the chemicals in this product are listed as Hazardous Substances under the CWA.
- None of the chemicals in this product are listed as Priority Pollutants under the CWA.
- None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**
- None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**
- CAS# 79-20-9 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.
California Prop 65
California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives

Hazard Symbols:
- XI F

Risk Phrases:
- R 11 Highly flammable.
- R 36 Irritating to eyes.
- R 66 Repeated exposure may cause skin dryness or cracking.
- R 67 Vapours may cause drowsiness and dizziness.

Safety Phrases:
- S 16 Keep away from sources of ignition - No smoking.
- S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 29 Do not empty into drains.
- S 33 Take precautionary measures against static discharges.

WGK (Water Danger/Protection)
- CAS# 79-20-9: 1

Canada - DSL/NDSL
- CAS# 79-20-9 is listed on Canada's DSL List.

Canada - WHMIS
This product has a WHMIS classification of B2, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List
- CAS# 79-20-9 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 12/12/1997
Revision #8 Date: 7/28/2006

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.