## CAUTIONARY RESPONSE INFORMATION

<table>
<thead>
<tr>
<th>Common Synonyms</th>
<th>Liquid</th>
<th>Colorless</th>
<th>Mild, ether-like</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol monomethyl ether acetate</td>
<td>Soluble in water.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycol monomethyl ether acetate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Methoxyethyl acetate</td>
<td>Methyl cellosolve acetate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Wear full impervious protective clothing and approved respirator. Shut off ignition sources and call fire department. Notify local health and pollution control agencies. Protect water intakes.
- Call for medical aid.
- Notify local health and wildlife officials. Notify operators of nearby water intakes.

### 1. CORRECTIVE RESPONSE ACTIONS
- Stop discharge.
- Dilute and disperse.
- Notify operators of nearby water intakes.

### 2. CHEMICAL DESIGNATIONS
- CG Compatibility Group: 34; Esters
- Formula: C5H10O2
- IMDG Designation: Currently not available
- DOT ID No.: 1189
- CAS Registry No.: 110-49-6
- NAERG Guide No.: 129
- Standard Industrial Trade Classification: 5/16/16

### 3. HEALTH HAZARDS
- Personal Protective Equipment: Impervious clothing and gloves should be used to prevent skin contact. Where splashing is possible wear full face shield or chemical safety goggles. Use approved respirator to protect against vapors.
- Symptoms Following Exposure: May cause irritation if splashed into eyes. Can be absorbed through the skin. Swallowing a large single dose or absorbing large amount through skin could result in death. It is unlikely that air levels of the compound would be dangerous unless it is heated.
- Treatment of Exposure: Get medical attention. INHALATION: Remove to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. EYES: Flush with water for at least 15 min., lifting lids occasionally. Contact lenses should not be worn when working with this chemical. SKIN: Remove contaminated clothing and shoes. Flush with water. INGESTION: Induce vomiting.
- TLV-TWA: 5 ppm.
- TLV-Ceiling: Not listed.
- Toxicity by Ingestion: Grade 2; oral rat LD₅₀ = 3.39 g/kg
- Toxicity by Inhalation: Currently not available.
- Chronic Toxicity: repeated or prolonged overexposure may cause lung or kidney damage, brain damage, and death.
- Vapor (Gas) Irritant Characteristics: Vapors cause a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is temporary.
- Liquid or Solid Characteristics: Minimum hazard. If spilled on clothing and allowed to remain, may cause smarting and reddening of skin.
- Odor Threshold: 50 ppm.
- IDLH Value: 200 ppm
- OSHA PEL-TWA: 25 ppm
- OSHA PEL-STEL: Not listed.
- OSHA PEL-Ceiling: Not listed.
- EPA AEG: Not listed.

### 4. FIRE HAZARDS
- Flash Point: 111°F C.C.
- Flammable Limits in Air: LELEL: 1.5% @ 200°F; UEL: 12.3% @ 200°F
- Fire Extinguishing Agents: Water spray, dry chemical, alcohol foam, or carbon dioxide.
- Fire Extinguishing Agents Not to Be Used: Water.
- Special Hazards of Combustion Products: Inhaling vapors and toxic gases, such as carbon monoxide, may be formed when burned in limited air. Alpha is combustible in air.
- Behavior in Fire: Currently not available
- Auto Ignition Temperature: 740°F.
- Electrical Hazards: Not listed.
- Burning Rate: Currently not available
- Combustive Flame Temperature: 425°F.
- Stoichiometric Air to Fuel Ratio: 28.6 (calc.)
- Flame Temperature: Currently not available
- Combustion Molar Ratio (Reactant to Product): 10.0 (calc.)
- Minimum Oxygen Concentration for Combustion (MOCC): Not listed

### 5. CHEMICAL REACTIVITY
- Reactivity with Water: No reaction.
- Reactivity with Common Materials: Contact with nitrates, strong oxidizers, strong acids may cause fires and explosions.
- Stability During Transport: Stable.
- Neutralizing Agents for Acids and Caustics: Not pertinent.
- Polymerization: Will not polymerize.
- Inhibitor of Polymerization: Not pertinent.

### 6. WATER POLLUTION
- Aquatic Toxicity: 1.9 mg/l/L50/goldfish/LC₅₀
- Waterfowl Toxicity: Currently not available
- Biological Oxygen Demand (BOD): 0.41
- Food Chain Concentration Potential: Currently not available
- GESAMP Hazard Profile: Bioaccumulation: 0
- Damage to living resources: 2
- Human Oral hazard: 1
- Human Contact hazard: Reduction of amenities: XXX

### 7. SHIPPING INFORMATION
- Grades of Purity: 99%; technical.
- Storage Temperature: Ambient.
- Inert Atmosphere: No requirement.
- Venting: Not listed.
- IMO Pollution Category: C
- Ship Type: 3
- Barge Hull Type: Currently not available

### 8. HAZARD CLASSIFICATIONS
- Chemical Classification
  - Health Hazard: Not listed
  - Flammability (Red): 2
  - Instability (Yellow): Not listed
- EPA Reportable Quantity: Not listed.
- EPA Pollution Category: Not listed.
- RORA Waste Number: Not listed
- EPA FPS List: Not listed

### 9. PHYSICAL & CHEMICAL PROPERTIES
- Physical State at 15° C and 1 atm: Liquid
- Molecular Weight: 118.13
- Boiling Point: 203°F = 145°C = 311°F
- Freezing Point: –85°F = –65°C = 208°F
- Critical Temperature: Currently not available
- Critical Pressure: Currently not available
- Specific Gravity: 1.006 @ 20°C
- Liquid Surface Tension: Currently not available
- Liquid Water Interface Tension: Currently not available
- Vapor Specific Gravity: 4.1
- Ratio of Specific Heats of Vapor (Gas): Currently not available
- Latent Heat of Vaporization: Currently not available
- Heat of Combustion: Currently not available
- Heat of Decomposition: Currently not available
- Heat of Solution: Currently not available
- State of Fusion: Currently not available
- Limiting Value: Currently not available
- Reid Vapor Pressure: Currently not available

### NOTES

- EGT JUNE 1999
### ETHYLENE GLYCOL METHYL ETHER ACETATE (EGT)

#### 9.20 Saturated Liquid Density

<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>Pounds per cubic foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>68</td>
<td>8.400</td>
</tr>
</tbody>
</table>

#### 9.21 Liquid Heat Capacity

<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>British thermal unit per pound-F</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRENTLY</td>
<td>N A L E</td>
</tr>
</tbody>
</table>

#### 9.22 Liquid Thermal Conductivity

<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>British thermal unit inch per hour-square foot-F</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRENTLY</td>
<td>N A L E</td>
</tr>
</tbody>
</table>

#### 9.23 Liquid Viscosity

<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>Centipoise</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRENTLY</td>
<td>N A L E</td>
</tr>
</tbody>
</table>

#### 9.24 Solubility in Water

<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>Pounds per 100 pounds of water</th>
</tr>
</thead>
<tbody>
<tr>
<td>M I S C I B L E</td>
<td>CURRENTLY NOT A V A I L A B L E</td>
</tr>
</tbody>
</table>

#### 9.25 Saturated Vapor Pressure

<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>Pounds per square inch</th>
</tr>
</thead>
<tbody>
<tr>
<td>68</td>
<td>0.039</td>
</tr>
</tbody>
</table>

#### 9.26 Saturated Vapor Density

<table>
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<tr>
<th>Temperature (degrees F)</th>
<th>Pounds per cubic foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>68</td>
<td>0.00061</td>
</tr>
</tbody>
</table>

#### 9.27 Ideal Gas Heat Capacity

<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>British thermal unit per pound-F</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRENTLY</td>
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