### MONOMETHYL ETHANOLAMINE

#### 1. CORRECTIVE RESPONSE ACTIONS
Stop discharge

#### 2. CHEMICAL DESIGNATIONS
- **CG Compatibility Group:** Not listed.
- **Chemical Name:** MONOMETHYL ETHANOLAMINE
- **CAS Registry No.:** 109-83-1
- **DOT ID No.:** Not listed.
- **IMDG Code:** Not listed.
- **NAERG Guide No.:** Not listed.
- **UN Number:** 2514
- **UN Subclass:** XI
- **UN Division:** 3
- **Water Solubility:** 1
- **Form:** Liquid
- **Color:** Colorless
- **Odor:** None
- **Density:** 0.9414 g/mL
- **Relative Density:** 0.9414
- **Flammability:** Class 3
- **Flash Point:** 165°F (73.9°C)
- **Flammable Limits in Air:** Not listed
- **Auto Ignition Temperature:** Not listed
- **Flammable Limits in Nitrogen:** Not listed
- **Explosive Limits:** Not listed
- **Extinguishing Agents:** Water, carbon dioxide, dry chemical, alcohol foam
- **Fire Fighting Procedures:** For small fires, use water. For large fires, use the recommended extinguishing agent. Water is the preferred agent for all fires. Do not use water to fight fires containing a large quantity of liquid.
- **Health Hazards:** Irritating to skin, eyes, and respiratory tract.
- **Environmental Hazards:** Harmful to aquatic life.
- **Special Handling and Storage:** Storage should be in a cool, dry place away from direct sunlight and heat. Keep away from incompatible materials. Handle with care to avoid spills.
- **Handling Precautions:** Use appropriate personal protective equipment. Ventilate areas where vapor concentrations exceed the OSHA PEL-TWA.
- **Stability:** Stable under normal conditions. May decompose on prolonged heating.
- **Reactivity:** Reacts with strong oxidizers. May form explosive mixtures with air.
- **Hazardous Combustion Products:** Carbon dioxide, water, nitrogen oxides.
- **Exposure Limit:** Not listed
- **IDLH Value:** Not listed
- **Limiting Value:** Not listed
- **Observed Threshold Limit:** Not listed
- **Threshold Limit Value:** Not listed
- **Permissible Exposure Limit:** Not listed
- **Permissible Concentration:** Not listed
- **Health Effects:** Acute exposure may cause irritation of the respiratory tract, eyes, and skin. Chronic exposure may cause central nervous system depression.
- **Symptoms Following Exposure:** Includes coughing, sneezing, difficulty breathing, eye irritation, and skin irritation.
- **Treatments of Injuries:** Get medical attention immediately. In case of contact with the eyes, flush with copious amounts of water for at least 15 minutes. If irritation persists, consult a physician.
- **Waste Treatment:** Not listed.
- **EPA Wastes:** Not listed
- **Material Safety Data Sheet:** Available

#### 3. HEALTH HAZARDS
- **Personal Protective Equipment:** Use appropriate personal protective equipment, including goggles, respirator, and gloves. Ventilate areas where vapor concentrations exceed the OSHA PEL-TWA.
- **Symptoms Following Exposure:** Exposure to high concentrations may cause irritation of the respiratory tract, eyes, and skin. Chronic exposure may cause central nervous system depression.
- **Treatments of Injuries:** Get medical attention immediately. In case of contact with the eyes, flush with copious amounts of water for at least 15 minutes. If irritation persists, consult a physician.
- **Waste Treatment:** Not listed.
- **EPA Wastes:** Not listed
- **Material Safety Data Sheet:** Available

#### 4. FIRE HAZARDS
- **Flash Point:** 165°F (73.9°C)
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- **Treatments of Injuries:** Get medical attention immediately. In case of contact with the eyes, flush with copious amounts of water for at least 15 minutes. If irritation persists, consult a physician.
- **Waste Treatment:** Not listed.
- **EPA Wastes:** Not listed
- **Material Safety Data Sheet:** Available

#### 5. CHEMICAL REACTIVITY
- **Reactivity with Water:** No reaction.
- **Reactivity with Common Materials:** Not listed
- **Stability During Transport:** Stable.
- **Neutralizing Agents for Acids and Caustics:** Not pertinent.
- **Polymerization:** Will not polymerize.
- **Compatibility with Other Materials:** Not pertinent.

#### 6. WATER POLLUTION
- **Aquatic Toxicity:** Currently not available
- **Water/Soil Toxicity:** Currently not available
- **Biological Oxygen Demand (BOD):** Currently not available
- **Food Chain Concentration Potential:** Currently not available
- **GESAMP Hazard Profile:** Bioaccumulation: 2 Damage to living resources: 0 Human oral hazard: 0 Human contact hazard: 1 Reduction of amenities: X

#### 7. SHIPPING INFORMATION
- **Grades of Purity:** 99%; technical grades.
- **Storage Temperature:** Ambient.
- **Inert Atmosphere:** Not required.
- **Venting:** Not listed.
- **IMO Pollution Category:** Currently not available
- **Ship Type:** Currently not available
- **Barge Hull Type:** Currently not available

#### 8. HAZARD CLASSIFICATIONS
- **49 CFR Category:** Not listed.
- **Class:** Not pertinent
- **Package Group:** Not listed
- **Marine Pollutant:** No
- **NFP Hazard Classification:** Not pertinent
- **Category:** Classification
- **Health Hazard (Blue):** 2
- **Flammability (Red):** 2
- **Instability (Yellow):** 0
- **EPA Reportable Quantity:** Not listed
- **EPA Pollution Category:** Not listed
- **RCRA Waste Number:** Not listed
- **EPA PWWCA List:** Not listed

#### 9. PHYSICAL & CHEMICAL PROPERTIES
- **Physical State at 15°C and 1 atm:** Liquid
- **Boiling Point:** 139°C (282°F)
- **Flash Point:** 20°F (–6.7°C)
- **Vapor Pressure:** Not available
- **Heat of Combustion:** Not available
- **Heat of Polymerization:** Not available
- **Heat of Solution:** Not available
- **Heat of Decomposition:** Not available
- **Freezing Point:** Currently not available
- **Critical Temperature:** Currently not available
- **Critical Pressure:** Currently not available
- **Critical Volume:** Not available
- **Specific Gravity:** Not available
- **Surface Tension:** Not available

#### 10. ENVIRONMENTAL EFFECTS
- **Reduction of Amenities:** Currently not available
- **Bioaccumulation:** Currently not available
- **Damage to Living Resources:** Currently not available
- **Hazardous to Wildlife:** Currently not available
- **Human Oral Hazard:** Not available
- **Human Contact Hazard:** 1
- **Human Necrosis Hazard:** Not available
- **Insecticide Activity:** Not available
- **Stability During Transport:** Stable.

#### NOTES
- **Safety Data Sheet:** Available
- **Material Safety Data Sheet:** Available
- **Material Safety Data Sheet:** Available

**JUNE 1999**
### SATURATED LIQUID DENSITY

<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>Pounds per cubic foot</th>
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### LIQUID HEAT CAPACITY

<table>
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<th>Temperature (degrees F)</th>
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### LIQUID THERMAL CONDUCTIVITY

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### LIQUID VISCOSITY

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### SOLUBILITY IN WATER

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### SATURATED VAPOR PRESSURE

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### IDEAL GAS HEAT CAPACITY

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