### 1. CORRECTIVE RESPONSE ACTIONS

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Discharge directly into water or drainage systems.</td>
</tr>
<tr>
<td>2</td>
<td>Do not burn.</td>
</tr>
</tbody>
</table>

### 2. CHEMICAL DESIGNATIONS

<table>
<thead>
<tr>
<th>Designation</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS Number</td>
<td>98-09-9</td>
</tr>
<tr>
<td>UN Number</td>
<td>8/2225</td>
</tr>
<tr>
<td>DOT Number</td>
<td>2225</td>
</tr>
<tr>
<td>IBC Title</td>
<td>Non-Classified</td>
</tr>
<tr>
<td>IBC Number</td>
<td>156</td>
</tr>
<tr>
<td>Standard Industrial Trade Classification</td>
<td>51059</td>
</tr>
</tbody>
</table>

### 3. HEALTH HAZARDS

#### 3.1 Personal Protective Equipment

- Wear positive pressure breathing apparatus and special protective clothing.
- Wear protective glasses or eye shields.
- Wear impermeable protective clothing and rubber gloves.
- Provide emergency medical care if necessary.

#### 3.2 Symptoms Following Exposure

- May cause skin and eye burns. Irritating to eyes, skin, and mucous membranes. INGESTION: May cause irreversible and permanent damage to the lining of the digestive tract. INHALATION: May cause respiratory irritation and pulmonary edema.

#### 3.3 Treatment of Exposure

- **INHALATION:** Move victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. EYES OR SKIN: Flush with running water for at least 15 min.; hold eyelids open if necessary. Wash skin with soap and water. Remove and isolate contaminated clothing and shoes at the site. Maintain normal body temperature and keep victim quiet. Notify local health and wildlife officials. Notify operators of nearby water intakes.

### 4. FIRE HAZARDS

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>293.8°F (C)</td>
</tr>
<tr>
<td>Flammable Limits in Air</td>
<td>Currently not available</td>
</tr>
<tr>
<td>Fire Extinguishing Agent</td>
<td>Small fires: dry chemical; water spray or foam; large fires: water spray, fog, or foam</td>
</tr>
<tr>
<td>Fire Extinguishing Agent Not to Be Used</td>
<td>No positive pressure breathing apparatus and special protective clothing</td>
</tr>
</tbody>
</table>

### 5. CHEMICAL REACTIVITY

- **Reactivity with Water:** Decomposes in hot water to produce highly toxic and corrosive hydrochloric acid and benzenesulfonic acid. Reaction ofreacts with hot water to produce highly toxic and corrosive hydrochloric acid and benzenesulfonic acid. Rates of reaction decreases as temperature decreases.

### 6. WATER POLLUTION

- **Acute Toxicity:** 3 mg/l 48 hr brown trout yarlings/LC50 rosewater.
- **Wetland Toxicity:** Currently not available.
- **Biological Oxygen Demand (BOD):** Currently not available.

### 7. SHIPPING INFORMATION

- **Grades of Purity:** 96%; 99%
- **Storage Temperature:** Currently not available
- **Inert Atmosphere:** Currently not available
- **Venting:** Currently not available
- **IMO Pollution Category:** D
- **Ship Type:** III
- **Barge Hull Type:** Currently not available

### 8. HAZARD CLASSIFICATIONS

- **Physical & Chemical Properties**
  - Physical State at 15°C and 1 atm: Liquid
  - Molecular Weight: 176.62
  - Boiling Point at 1 atm: 484.7°F = 251.5°C = 824.7 K
  - Freezing Point: 58.1°F = 14.5°C = 287.7 K
  - Currents: Temperature currently not available
  - Pressure: Temperature currently not available
  - Specific Gravity: 1.382 at 15°C
  - Liquid Surface Tension: Currently not available
  - Liquid Water Interfaceal Tension: Currently not available
  - Vapor (Gas) Specific Gravity: 6.09 (est.)
  - 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 Evolution: Not pertinent
  - Heat of Solution: Not pertinent
  - Heat of Fusion: Not pertinent
  - Heat of Polymerization: Not pertinent
- **Food Chain Concentration Potential:** Not pertinent
- **Waterfowl Toxicity:** Currently not available
- **Biological Oxygen Demand (BOD):** Currently not available
- **Tennis: Food Chain Concentration Potential:** Not pertinent
- **Ship Type:** III
- **Barge Hull Type:** Currently not available

### 9. PHYSICAL & CHEMICAL PROPERTIES

#### 9.1 Physical State at 15°C and 1 atm: Liquid

- Molecular Weight: 176.62
- Boiling Point at 1 atm: 484.7°F = 251.5°C = 824.7 K
- Freezing Point: 58.1°F = 14.5°C = 287.7 K
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- Heat of Evolution: Not pertinent
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- Heat of Fusion: Not pertinent
- Heat of Polymerization: Not pertinent
- Food Chain Concentration Potential: Not pertinent
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- Biological Oxygen Demand (BOD): Currently not available
- Tennis: Food Chain Concentration Potential: Not pertinent

### NOTES

- JUNE 1999
<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>Pounds per cubic foot</th>
<th>Temperature (degrees F)</th>
<th>British thermal unit per pound-F</th>
<th>Temperature (degrees F)</th>
<th>British thermal unit inch per hour-square foot-F</th>
<th>Temperature (degrees F)</th>
<th>Centipoise</th>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
<td>86.500</td>
<td>C</td>
<td>R</td>
<td>E</td>
<td>T</td>
<td>N</td>
<td>O</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>Pounds per 100 pounds of water</th>
<th>Temperature (degrees F)</th>
<th>Pounds per square inch</th>
<th>Temperature (degrees F)</th>
<th>Pounds per cubic foot</th>
<th>Temperature (degrees F)</th>
<th>British thermal unit per pound-F</th>
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<tbody>
<tr>
<td>I</td>
<td>0.039</td>
<td>175</td>
<td>0.064</td>
<td>200</td>
<td>0.00068</td>
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<td>N</td>
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<tr>
<td>S</td>
<td>0.523</td>
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<td>375</td>
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<tr>
<td>O</td>
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