**CAUTIONARY RESPONSE INFORMATION**

**Common Synonyms**
- 2-Cresol
- o-Hydroxytoluene
- 2-Methylphenol
- o-Tolualdehyde

**Solid crystals or liquid**
- Colorless to yellow
- Sweet tofarry odor
- Sinks and mixes slowly with water.

**Fire**
- COMBUSTIBLE
- POISONOUS GASES MAY BE PRODUCED IN FIRE.
- Wear goggles and self-contained breathing apparatus.
- Keep cool by spraying with a water mist.

**Exposure**
- CALL FOR MEDICAL AID.
- LIQUID OR SOLID
- Will burn skin and eyes.
- Poisonous if swallowed, inhaled or if skin is exposed.
- May cause sensitization.
- Keep cool by mixing with water.

**Water Pollution**
- WATER POLLUTION
- HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS.

**1. CORRECTIVE RESPONSE ACTIONS**
- Dilute and dispense
- Shop discharge
- Contain
- Collection Systems: Pump, Decant
- Chemical and Physical Treatment:
  - Neutralize
  - Do not burn
  - Clean shore line

**2. CHEMICAL DESIGNATIONS**
- 2.1 CG Compatibility Group: 21: Phenols, cresols
- 2.2 Formula: CH₃-CH(OH)-C₆H₄-H
- 2.3 IMOM/UN Designation: 6.1/2076
- 2.4 DOT No.: 2076
- 2.5 CAS Registry No.: 95-48-7
- 2.6 NAERG Guide No.: 153
- 2.7 Standard Industrial Trade Classification: 51242

**3. HEALTH HAZARDS**
- 3.1 Personal Protective Equipment: Chemical goggles or face shields, full protective clothing including boots and gloves, and respiratory protective apparatus.
- 3.2 Symptoms Following Exposure: EPIHUTION, INGESTION OR SKIN ABNORMALITY: Central nervous system depression, muscular weakness, gastrointestinal disturbances, convulsions and death.
- 3.3 Treatment of Exposure:
  - Call a doctor. INHALATION: Move to fresh air. Oxygen inhalation for respiratory distress. If needed, give artificial respiration.
  - EYES: Irrigate with copious quantities of running water for 15 min. Hold eyelids open. If physician not available irrigate for an additional 15 min.
  - SKIN: Cover with a layer of cloth and cool with cold water. Wash with soap and water until all odor is gone. Then wash contaminated areas with alcohol or glycerin. Then use more water.
  - INGESTION: Drink large quantities of liquid (salt water, weak sodium bicarbonate solution, milk or gruel) followed by emetic such as raw egg white or corn starch paste. Induce vomiting, if not spontaneous. Keep up until vomitus is free of Cresol odor.
- 3.4 TLV-TWA: 5 ppm
- 3.5 TLV-STEL: Not listed.
- 3.6 TLV-Ceiling: Not listed.
- 3.7 Toxicity by Ingestion: Grade 3; LD₅₀ = 50 - 500 mg/kg.
- 3.8 Toxicity by Inhalation: Currently not available.

**4. FIRE HAZARDS**
- 4.1 Flash Point: 178°F C.C.
- 4.2 Flammable Limits in Air: 1.35%
- 4.3 Fire Extinguishing Agents: Water may be used to blanket fires. CO₂, dry chemical, water, foam and water spray (gently applied).
- 4.4 Fire Extinguishing Agents Not to Be Used: Not pertinent
- 4.5 Special Hazards of Combustion Products: Emits highly toxic fumes.
- 4.6 Behavior in Fire: Vapors form explosive mixtures with air.
- 4.7 Auto Ignition Temperature: 1110°F.
- 4.8 Electrical Hazards: Currently not available
- 4.9 Burning Rate: Currently not available
- 4.10 Explosive Limit: Not listed
- 4.11 Stoichiometric Air to Fuel Ratio: 40.5 (calc.)
- 4.12 Flame Temperature: Currently not available
- 4.13 Combustion Molar Ratio (Reactant to Product): 11.0 (calc.)
- 4.14 Minimum Oxygen Concentration for Combustion (MOC): Not listed

**5. CHEMICAL REACTIVITY**
- 5.1 Reactivity with Water: No reaction
- 5.2 Reactivity with Common Materials: No reaction
- 5.3 Stability During Transport: Stable
- 5.4 Neutralizing Agents for Acids and Caustics: Not pertinent
- 5.5 Polymerization: Will not occur
- 5.6 Inhibitor of Polymerization: Not pertinent

**6. WATER POLLUTION**
- 6.1 Aquatic Toxicity:
  - 49.1-19 ppm/24-96 hr/goldfish/TL
  - 22.2-20.8 ppm/24-96 hr/bluegill/TL
  - 18-13 ppm/24-96 hr/fathead minnow/TL/hard water
  - 18-50 ppm/24-96 hr/grape/gil/TL/hard water
- 6.2 Waterfowl Toxicity: Chronic water fowl toxic limit is 25 ppm.
- 6.3 Biological Oxygen Demand (BOD): 1.64 lb/ft²/10 days.
- 6.4 Food Chain Concentration Potential: None
- 6.5 GESAMP Hazard Profile: Not listed

**7. SHIPPING INFORMATION**
- 7.1 Grades of Purity: 90-98% containing 2-20% phenol. 99.2% with 0.2% phenol and 0.6% meta and para isomers.
- 7.2 Storage Temperature: Ambient
- 7.3 Inert Atmosphere: No requirement
- 7.4 Venting: Open
- 7.5 IMO Pollution Category: A
- 7.6 Ship Type: 2
- 7.7 Barge Hull Type: Currently not available

**8. HAZARD CLASSIFICATIONS**
- 8.1 49 CFR Category: Poison
- 8.2 49 CFR Class: 8.1
- 8.3 49 CFR Package Group: II
- 8.4 Marine Pollutant: Yes
- 8.5 NTPA Hazard Classification:
  - Category: Classification
  - Health Hazard (Blue).............. 3
  - Flammability (Red).................. 2
  - Instability (Yellow).................. 0
- 8.6 EPA Reportable Quantity: 100 pounds
- 8.7 EPA Pollution Category: B
- 8.8 RODA Waste Number: D023
- 8.9 EPA FWPCA List: Yes

**9. PHYSICAL & CHEMICAL PROPERTIES**
- 9.1 Physical State at 15°C and 1 atm: Solid
- 9.2 Molecular Weight: 108.134
- 9.3 Boiling Point at 1 atm: 376°F = 191°C = 464.2°F
- 9.4 Freezing Point: 88°F = 33°C = 304.2°F
- 9.5 Critical Temperature: 795.9°F = 424.4°C = 797.8°F
- 9.6 Critical Pressure: 726.0 psi = 49.4 atm = 5.00 MmH₂O
- 9.7 Specific Gravity: 1.05 at 20°C
- 9.8 Liquid Surface Tension: 40.3 dynes/cm
- 9.9 Thermal Conductivity: 0.0463 W/m°C at 20°C
- 9.10 Vapor (Gas) Specific Gravity: 3.72
- 9.11 Ratio of Specific Heats of Vapor (Gas): > 1 in water
- 9.12 Latent Heat of Vaporization: 178.4 Btu/lb = 99.12 cal/g = 4.15 X 10⁷ J/kg
- 9.13 Heat of Combustion: -13994 Btu/lb = -7774 cal/g = -325 X 10⁷ J/kg
- 9.14 Heat of Decomposition: Not pertinent
- 9.15 Heat of Solution: Not pertinent
- 9.16 Heat of Polymerization: Not pertinent
- 9.17 Heat of Fusion: Currently not available
- 9.18 Limiting Value: Currently not available
- 9.19 Reid Vapor Pressure: Currently not available

**NOTES**

**JUNE 1999**
### Saturated Liquid Density

<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>70</td>
<td>65.459</td>
<td>90</td>
<td>1.055</td>
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### Liquid Heat Capacity

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<th>Temperature (degrees F)</th>
<th>British thermal unit per pound-F</th>
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<tbody>
<tr>
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### Liquid Thermal Conductivity

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### Liquid Viscosity

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### Solubility in Water

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<tr>
<th>Temperature (degrees F)</th>
<th>Pounds per 100 pounds of water</th>
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</thead>
</table>

### Saturated Vapor Pressure

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

### Saturated Vapor Density

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

### Ideal Gas Heat Capacity

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

### Notes

- **O-Cresol**
- Data provided for various physical properties at different temperatures.
- Units used: Pounds per cubic foot, British thermal unit per pound-F, Centipoise, Pounds per square inch, Pounds per cubic foot, British thermal unit per pound-F.
- Data ranges from 70 to 120 degrees F.