**DIISOBUTYL PHTHALATE**

### 1. CORRECTIVE RESPONSE ACTIONS

**1.1 Personal Protective Equipment:** Eye protection.
**1.2 Symptoms Following Exposure:** Vapors from very hot material may irritate eyes and produce headache, drowsiness, and convulsions.
**1.3 Treatment of Exposure:** Remove to fresh air. Wash affected skin areas with water. Flush eyes with water.

### 2. CHEMICAL DESIGNATIONS

**2.1 CG Compatibility Group:** 34: Eater
**2.2 Formula:** C12H22O4
**2.3 IMO/UN Designation:** Not listed
**2.4 DOT ID No.:** Not listed
**2.5 CAS Registry No.:** 81-66-6
**2.6 NAERG Guide No.:** Not listed
**2.7 Standard Industrial Trade Classification:** 51385

### 3. HEALTH HAZARDS

**3.1 Liquid or Solid Characteristics:** No appreciable hazard. Practically harmless to the skin.
**3.2 Odor Threshold:** Currently not available
**3.3 IDLH Value:** Currently not available
**3.4 OSHA PEL-TWA:** Not listed
**3.5 OSHA PEL-STEL:** Not listed
**3.6 OSHA PEL-Ceiling:** Not listed
**3.17 EPA AEGI:** Not listed

### 4. FIRE HAZARDS

**4.1 Flash Point:** 385°F (C.C.)
**4.2 Flammable Limits in Air:** 0.4%
**4.3 Fire Extinguishing Agents:** Dry powder, carbon dioxide, foam
**4.4 Fire Extinguishing Agents Not to Be Used:** Water or foam on any cause frothing.
**4.5 Special Hazards of Combustion Products:** Not pertinent
**4.6 Behavior in Fire:** Not pertinent
**4.7 Auto Ignition Temperature:** 810°F
**4.8 Electrical Hazards:** Not pertinent
**4.9 Burning Rate:** Currently not available
**4.10 Acidic Flame Temperature:** Currently not available
**4.11 Stoichiometric Air to Fuel Ratio:** 92.8 (calc.)
**4.12 Flame Temperature:** Currently not available
**4.13 Combustion Molar Ratio (Reactant to Product):** 27.0 (calc.)
**4.14 Minimum Oxygen Concentration for Combustion (MOCC):** 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 Causatives:** Not pertinent
**5.5 Polymerization:** Not pertinent
**5.6 Inhibitor of Polymerization:** Not pertinent

### 6. WATER POLLUTION

**6.1 Aquatic Toxicity:** Not currently available
**6.2 Waterfowl Toxicity:** Currently not available
**6.3 Biological Oxygen Demand (BOD):** Not currently available
**6.4 Food Chain Concentration Potential:** None
**6.5 GESAMP Hazard Profile:** Bioaccumulation: 0 Damage to living resources: 3 Human Oral hazard: 0 Human Contact hazard: 0 Reduction of amenities: X

### 7. SHIPPING INFORMATION

**7.1 Grades of Purity:** 99.6%
**7.2 Storage Temperature:** Currently not available
**7.3 Inert Atmosphere:** Currently not available
**7.4 Venting:** Currently not available
**7.5 IMO Pollution Category:** B
**7.6 Ship Type:** 3
**7.7 Barge Hull Type:** Currently not available

### 8. HAZARD CLASSIFICATIONS

**8.1 49 CFR Class:** Not listed
**8.2 49 CFR Group:** Not listed
**8.3 49 CFR Package Group:** Not listed
**8.4 Marine Pollutant:** No
**8.5 NFPA Hazard Classification:**
<table>
<thead>
<tr>
<th>Category</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>Classification</td>
</tr>
<tr>
<td>Flammability (Red)</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity (Blue)</td>
<td>0</td>
</tr>
<tr>
<td>Toxicity (Yellow)</td>
<td>0</td>
</tr>
</tbody>
</table>

### 9. PHYSICAL & CHEMICAL PROPERTIES

**9.1 Physical State at 15°C and 1 atm:** Liquid
**9.2 Molecular Weight:** 278.35
**9.3 Boiling Point:** 568°F (298°C) = 571°F
**9.4 Freezing Point:** -83°F = -64°C = 209°K
**9.5 Critical Temperature:** Currently not available
**9.6 Critical Pressure:** Currently not available
**9.7 Specific Gravity:** 1.047 at 20°C (liquid)
**9.8 Liquid Surface Tension:** Currently not available
**9.9 Liquid Water Interfacial Tension:** Currently not available
**9.10 Vapor (Gas) Specific Gravity:** 9.59
**9.11 Ratio of Specific Heats of Vapor (Gas):** Not pertinent
**9.12 Latent Heat of Vaporization:** Not pertinent
**9.13 Heat of Combustion:** Currently not available
**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 Values:** 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>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
<td>65.490</td>
</tr>
</tbody>
</table>

### Liquid Heat Capacity

<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>British thermal unit per pound°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
<td>C U R E N T Y</td>
</tr>
</tbody>
</table>

### 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>59</td>
<td>C U R E N T Y</td>
</tr>
</tbody>
</table>

### Liquid Viscosity

<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>Centipoise</th>
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<tbody>
<tr>
<td>59</td>
<td>C U R E N T Y</td>
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</tbody>
</table>

### Solubility in Water

<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>Pounds per 100 pounds of water</th>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
<td>C U R E N T Y</td>
</tr>
</tbody>
</table>

### Saturated Vapor Pressure

<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>Pounds per square inch</th>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
<td>C U R E N T Y</td>
</tr>
</tbody>
</table>

### Saturated Vapor Density

<table>
<thead>
<tr>
<th>Temperature (degrees F)</th>
<th>Pounds per cubic foot</th>
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<tr>
<td>59</td>
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</tr>
</tbody>
</table>

### 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>59</td>
<td>C U R E N T Y</td>
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