

# DINONYL PHTHALATE

DIF

## CAUTIONARY RESPONSE INFORMATION

<b>Common Synonyms</b> Bioflex 91 Dinonyl 1,2- benzenedicarboxylate Di-n-nonyl phthalate Phthalic acid, dinonyl ester	Liquid	Colorless	Odorless
<p><b>Keep people away.</b>  <b>Avoid contact with liquid.</b>  <b>Call fire department.</b>  <b>Notify local health and pollution control agencies.</b></p>			
<b>Fire</b>	Combustible. Water may be ineffective on fire. Extinguish with dry chemical, alcohol foam, or CO <sub>2</sub> .		
<b>Exposure</b>	CALL FOR MEDICAL AID.  VAPOR Remove contaminated clothing and shoes. Flush affected areas with plenty of water IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED, and victim is CONSCIOUS, have victim drink 1-2 glasses of water.		
<b>Water Pollution</b>	Effect of low concentration on aquatic life is unknown. Fouling to shoreline. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.		

### 1. CORRECTIVE RESPONSE ACTIONS

Stop discharge  
 Contain  
 Collection Systems: Skim  
 Clean shore line  
 Salvage waterfowl

### 2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** 34; Esters  
 2.2 **Formula:** (C<sub>21</sub>H<sub>34</sub>)(COOC<sub>9</sub>H<sub>19</sub>)<sub>2</sub>  
 2.3 **IMO/UN Designation:** Currently not available  
 2.4 **DOT ID No.:** Not listed  
 2.5 **CAS Registry No.:** 84-76-4  
 2.6 **NAERG Guide No.:** Not listed  
 2.7 **Standard Industrial Trade Classification:** 51385

### 3. HEALTH HAZARDS

3.1 **Personal Protective Equipment:** Goggles or face shield; rubber gloves.  
 3.2 **Symptoms Following Exposure:** Moderately toxic by ingestion.  
 3.3 **Treatment of Exposure:** INHALATION: Move to fresh air. INGESTION: Have victim drink 1-2 glasses of water. EYES: Flush with water. SKIN: Wipe off. Flush with water. Wash with soap and water.  
 3.4 **TLV-TWA:** Not listed.  
 3.5 **TLV-STEL:** Not listed.  
 3.6 **TLV-Ceiling:** Not listed.  
 3.7 **Toxicity by Ingestion:** Grade 2; LD<sub>50</sub> = 2.0 g/kg (rat)  
 3.8 **Toxicity by Inhalation:** Currently not available.  
 3.9 **Chronic Toxicity:** Currently not available  
 3.10 **Vapor (Gas) Irritant Characteristics:** Currently not available  
 3.11 **Liquid or Solid Characteristics:** Currently not available  
 3.12 **Odor Threshold:** Currently not available  
 3.13 **IDLH Value:** Not listed.  
 3.14 **OSHA PEL-TWA:** Not listed.  
 3.15 **OSHA PEL-STEL:** Not listed.  
 3.16 **OSHA PEL-Ceiling:** Not listed.  
 3.17 **EPA AEGL:** Not listed

### 4. FIRE HAZARDS

4.1 **Flash Point:** 420°F C.C.  
 4.2 **Flammable Limits in Air:** Currently not available  
 4.3 **Fire Extinguishing Agents:** Alcohol foam, dry chemical, carbon dioxide.  
 4.4 **Fire Extinguishing Agents Not to Be Used:** Water may be ineffective.  
 4.5 **Special Hazards of Combustion Products:** Currently not available  
 4.6 **Behavior in Fire:** Currently not available  
 4.7 **Auto Ignition Temperature:** Currently not available  
 4.8 **Electrical Hazards:** Currently not available  
 4.9 **Burning Rate:** Currently not available  
 4.10 **Adiabatic Flame Temperature:** Currently not available  
 4.11 **Stoichiometric Air to Fuel Ratio:** 164.2 (calc.)  
 4.12 **Flame Temperature:** Currently not available  
 4.13 **Combustion Molar Ratio (Reactant to Product):** 47.0 (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:** May attack some form of plastics.  
 5.3 **Stability During Transport:** Stable.  
 5.4 **Neutralizing Agents for Acids and Caustics:** Not pertinent.  
 5.5 **Polymerization:** Not pertinent.  
 5.6 **Inhibitor of Polymerization:** Not pertinent.

### 6. WATER POLLUTION

6.1 **Aquatic Toxicity:** Currently not available  
 6.2 **Waterfowl Toxicity:** Currently not available  
 6.3 **Biological Oxygen Demand (BOD):** Currently not available  
 6.4 **Food Chain Concentration Potential:** Currently not available  
 6.5 **GESAMP Hazard Profile:**  
 Bioaccumulation: 0  
 Damage to living resources: 0  
 Human Oral hazard: 1  
 Human Contact hazard: 0  
 Reduction of amenities: XX

### 7. SHIPPING INFORMATION

7.1 **Grades of Purity:** Currently not available  
 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:** D  
 7.6 **Ship Type:** Data not available  
 7.7 **Barge Hull Type:** Currently not available

### 8. HAZARD CLASSIFICATIONS

8.1 **49 CFR Category:** Not listed.  
 8.2 **49 CFR Class:** Not pertinent.  
 8.3 **49 CFR Package Group:** Not listed.  
 8.4 **Marine Pollutant:** No  
 8.5 **NFPA Hazard Classification:** Not listed  
 8.6 **EPA Reportable Quantity:** Not listed.  
 8.7 **EPA Pollution Category:** Not listed.  
 8.8 **RCRA Waste Number:** Not listed  
 8.9 **EPA FWPCA List:** Not listed

### 9. PHYSICAL & CHEMICAL PROPERTIES

9.1 **Physical State at 15° C and 1 atm:** Liquid.  
 9.2 **Molecular Weight:** 418.68  
 9.3 **Boiling Point at 1 atm:** 775°F = 413°C = 686.2°K  
 9.4 **Freezing Point:** Currently not available  
 9.5 **Critical Temperature:** Currently not available  
 9.6 **Critical Pressure:** Currently not available  
 9.7 **Specific Gravity:** .97  
 9.8 **Liquid Surface Tension:** Currently not available  
 9.9 **Liquid Water Interfacial Tension:** Currently not available  
 9.10 **Vapor (Gas) Specific Gravity:** 14.44  
 9.11 **Ratio of Specific Heats of Vapor (Gas):** Currently not available  
 9.12 **Latent Heat of Vaporization:** Currently not available  
 9.13 **Heat of Combustion:** Currently not available  
 9.14 **Heat of Decomposition:** Currently not available  
 9.15 **Heat of Solution:** Currently not available  
 9.16 **Heat of Polymerization:** Currently not available  
 9.17 **Heat of Fusion:** Currently not available  
 9.18 **Limiting Value:** Currently not available  
 9.19 **Reid Vapor Pressure:** Currently not available

### NOTES

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
	C U R R E N T L Y  N O T  A V A I L A B L E		C U R R E N T L Y  N O T  A V A I L A B L E		C U R R E N T L Y  N O T  A V A I L A B L E		C U R R E N T L Y  N O T  A V A I L A B L E

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
	I N S O L U B L E	401	0.019		C U R R E N T L Y  N O T  A V A I L A B L E	0 25 50 75 100 125 150 175 200 225 250 275 300 325 350 375 400 425 450 475 500 525 550 575 600	0.297 0.310 0.323 0.336 0.348 0.360 0.372 0.384 0.395 0.406 0.417 0.428 0.439 0.449 0.460 0.470 0.480 0.489 0.499 0.508 0.517 0.526 0.535 0.544 0.552