

# DIPHENYL

DIL

CAUTIONARY RESPONSE INFORMATION				4. FIRE HAZARDS	7. SHIPPING INFORMATION								
Common Synonyms Biphenyl 1,1'-Biphenyl Carolid AL Lemonene Phenador-X Phenylbenzene PHPH Tetrosin LY Xenene	Solid	Colorless to pale yellow	Characteristic aromatic odor	<p><b>4.1 Flash Point:</b> 235°F C.C.</p> <p><b>4.2 Flammable Limits in Air:</b> 0.6% @ 111°C to 5.8% @ 166°C</p> <p><b>4.3 Fire Extinguishing Agents:</b> Carbon dioxide, dry chemical, alcohol foam, water spray.</p> <p><b>4.4 Fire Extinguishing Agents Not to Be Used:</b> Currently not available</p> <p><b>4.5 Special Hazards of Combustion Products:</b> Emits toxic fumes under fire conditions.</p> <p><b>4.6 Behavior in Fire:</b> Currently not available</p> <p><b>4.7 Auto Ignition Temperature:</b> 1004°F</p> <p><b>4.8 Electrical Hazards:</b> Currently not available</p> <p><b>4.9 Burning Rate:</b> Currently not available</p> <p><b>4.10 Adiabatic Flame Temperature:</b> Currently not available</p> <p><b>4.11 Stoichiometric Air to Fuel Ratio:</b> 69.0 (calc.)</p> <p><b>4.12 Flame Temperature:</b> Currently not available</p> <p><b>4.13 Combustion Molar Ratio (Reactant to Product):</b> 17.0 (calc.)</p> <p><b>4.14 Minimum Oxygen Concentration for Combustion (MOCC):</b> Not listed</p>	<p><b>7.1 Grades of Purity:</b> 99%</p> <p><b>7.2 Storage Temperature:</b> Ambient</p> <p><b>7.3 Inert Atmosphere:</b> Currently not available</p> <p><b>7.4 Venting:</b> Currently not available</p> <p><b>7.5 IMO Pollution Category:</b> A</p> <p><b>7.6 Ship Type:</b> 1</p> <p><b>7.7 Barge Hull Type:</b> Currently not available</p>								
<p>Keep people away. Call fire department. Avoid contact with liquid and solid. Notify local health and pollution control agencies. Protect water intakes.</p>				<p><b>8. HAZARD CLASSIFICATIONS</b></p> <p><b>8.1 49 CFR Category:</b> Not listed</p> <p><b>8.2 49 CFR Class:</b> Not pertinent.</p> <p><b>8.3 49 CFR Package Group:</b> Not listed.</p> <p><b>8.4 Marine Pollutant:</b> Yes</p> <p><b>8.5 NFPA Hazard Classification:</b></p> <table> <tr> <td>Category</td> <td>Classification</td> </tr> <tr> <td>Health Hazard (Blue).....</td> <td>2</td> </tr> <tr> <td>Flammability (Red).....</td> <td>1</td> </tr> <tr> <td>Instability (Yellow).....</td> <td>0</td> </tr> </table> <p><b>8.6 EPA Reportable Quantity:</b> Not listed.</p> <p><b>8.7 EPA Pollution Category:</b> Not listed.</p> <p><b>8.8 RCRA Waste Number:</b> Not listed</p> <p><b>8.9 EPA FWCNA List:</b> Not listed</p>		Category	Classification	Health Hazard (Blue).....	2	Flammability (Red).....	1	Instability (Yellow).....	0
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Health Hazard (Blue).....	2												
Flammability (Red).....	1												
Instability (Yellow).....	0												
Fire	<p>Combustible Wear self-contained breathing apparatus and protective clothing. Extinguish with water, dry chemical, alcohol foam or CO<sub>2</sub>. Cool exposed containers with water.</p>			<p><b>5. CHEMICAL REACTIVITY</b></p> <p><b>5.1 Reactivity with Water:</b> No reaction</p> <p><b>5.2 Reactivity with Common Materials:</b> No reaction</p> <p><b>5.3 Stability During Transport:</b> Stable</p> <p><b>5.4 Neutralizing Agents for Acids and Caustics:</b> Not pertinent</p> <p><b>5.5 Polymerization:</b> Will not occur</p> <p><b>5.6 Inhibitor of Polymerization:</b> Not pertinent</p>									
Exposure	<p>CALL FOR MEDICAL AID.  VAPOR, MIST OR DUST. Irritating to eyes, nose, throat and skin. Flush affected area with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water.  SOLID OR LIQUID Irritating to skin and eyes, nose and throat. Remove contaminated clothing and shoes. Flush affected areas with plenty water. IF IN EYES, hold eyelids open and flush with plenty of water. If swallowed, do not induce vomiting.</p>			<p><b>6. WATER POLLUTION</b></p> <p><b>6.1 Aquatic Toxicity:</b> Currently not available</p> <p><b>6.2 Waterfowl Toxicity:</b> Currently not available</p> <p><b>6.3 Biological Oxygen Demand (BOD):</b> Currently not available</p> <p><b>6.4 Food Chain Concentration Potential:</b> Currently not available</p> <p><b>6.5 GESAMP Hazard Profile:</b> Bioaccumulation: + Damage to living resources: 3 Human Oral hazard: I Human Contact hazard: II Reduction of amenities: XXX</p>									
Water Pollution	<p>HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS. Fouling to shoreline. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.</p>			<p><b>9. PHYSICAL &amp; CHEMICAL PROPERTIES</b></p> <p><b>9.1 Physical State at 15° C and 1 atm:</b> Solid</p> <p><b>9.2 Molecular Weight:</b> 154.21</p> <p><b>9.3 Boiling Point at 1 atm:</b> 491°F = 255°C = 528.2°K</p> <p><b>9.4 Freezing Point:</b> 156-161.6°F = 69-72°C = 342.2-345.2°K</p> <p><b>9.5 Critical Temperature:</b> Currently not available</p> <p><b>9.6 Critical Pressure:</b> Currently not available</p> <p><b>9.7 Specific Gravity:</b> 0.992</p> <p><b>9.8 Liquid Surface Tension:</b> Currently not available</p> <p><b>9.9 Liquid Water Interfacial Tension:</b> Currently not available</p> <p><b>9.10 Vapor (Gas) Specific Gravity:</b> 5.31</p> <p><b>9.11 Ratio of Specific Heats of Vapor (Gas):</b> Currently not available</p> <p><b>9.12 Latent Heat of Vaporization:</b> Currently not available</p> <p><b>9.13 Heat of Combustion:</b> Currently not available</p> <p><b>9.14 Heat of Decomposition:</b> Currently not available</p> <p><b>9.15 Heat of Solution:</b> Currently not available</p> <p><b>9.16 Heat of Polymerization:</b> Currently not available</p> <p><b>9.17 Heat of Fusion:</b> Currently not available</p> <p><b>9.18 Limiting Value:</b> Currently not available</p> <p><b>9.19 Reid Vapor Pressure:</b> &lt;0.001 psia</p>									
<p><b>1. CORRECTIVE RESPONSE ACTIONS</b></p> <p>Stop discharge Contain Collection Systems: Skim; Pump Chemical and Physical Treatment: Burn Clean shore line Salvage waterfowl</p> <p><b>2. CHEMICAL DESIGNATIONS</b></p> <p><b>2.1 CG Compatibility Group:</b> 32; Aromatic Hydrocarbon</p> <p><b>2.2 Formula:</b> C<sub>12</sub>H<sub>10</sub></p> <p><b>2.3 IMO/UN Designation:</b> Currently not available</p> <p><b>2.4 DOT ID No.:</b> Not listed</p> <p><b>2.5 CAS Registry No.:</b> 92-52-4</p> <p><b>2.6 NAERG Guide No.:</b> Not listed</p> <p><b>2.7 Standard Industrial Trade Classification:</b> 51129</p> <p><b>3. HEALTH HAZARDS</b></p> <p><b>3.1 Personal Protective Equipment:</b> Self-contained breathing apparatus and protective equipment.</p> <p><b>3.2 Symptoms Following Exposure:</b> Harmful if inhaled or swallowed. Causes irritation to eyes, skin and mucous membrane and upper respiratory tract. Causes central nervous system depression, paralysis and convolution in animals. May cause headache, diffuse gastrointestinal pain, nausea, indigestion, numbness and aching of limbs, and general fatigue. Liver function test may show abnormalities. Chronic exposure is mostly characterized by central nervous system symptoms, fatigue, headache, tremor, insomnia, sensory impairment, and mood changes. Such symptoms are rare however.</p> <p><b>3.3 Treatment of Exposure:</b> INHALATION: Call for medical aid. Remove the victim to fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen. INGESTION: DO NOT INDUCE VOMITING. SKIN: Wash with soap and copious amounts of water. EYES: Flush with copious amounts of water for at least 15 minutes.</p> <p><b>3.4 TLV-TWA:</b> 0.2 ppm</p> <p><b>3.5 TLV-STEL:</b> Not listed.</p> <p><b>3.6 TLV-Ceiling:</b> Not listed.</p> <p><b>3.7 Toxicity by Ingestion:</b> Grade 2; LD<sub>50</sub> = 1.9 g/kg (mouse)</p> <p><b>3.8 Toxicity by Inhalation:</b> Currently not available.</p> <p><b>3.9 Chronic Toxicity:</b> May cause nervous system disturbance and damage to liver.</p> <p><b>3.10 Vapor (Gas) Irritant Characteristics:</b> VAPORS cause a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is temporary.</p> <p><b>3.11 Liquid or Solid Characteristics:</b> Minimum hazard. If spilled on clothing and allowed to remain, may cause smarting and reddening of skin.</p> <p><b>3.12 Odor Threshold:</b> Currently not available</p> <p><b>3.13 IDLH Value:</b> 100 mg/m<sup>3</sup></p> <p><b>3.14 OSHA PEL-TWA:</b> 0.2 ppm</p> <p><b>3.15 OSHA PEL-STEL:</b> Not listed.</p> <p><b>3.16 OSHA PEL-Ceiling:</b> Not listed.</p> <p><b>3.17 EPA AERG:</b> Not listed</p>	<p><b>NOTES</b></p>												

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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		159 215 243 274 307 329 357 400 445 491	0.019 0.097 0.193 0.387 0.774 1.160 1.934 3.867 7.735 14.696		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	0.201 0.215 0.229 0.242 0.256 0.269 0.282 0.294 0.306 0.319 0.330 0.342 0.353 0.364 0.375 0.386 0.396 0.407 0.417 0.427 0.436 0.446 0.455 0.464 0.473