

DIPHENYLAMINE

DAM

CAUTIONARY RESPONSE INFORMATION			
Common Synonyms Anilinobenzene N-Phenylaniline	Solid Sinks in water.	Light tan to brown	Pleasant odor
<p>Keep people away. Avoid inhalation. Call fire department. Avoid contact with liquid and solid. Notify local health and pollution control agencies. Protect water intakes.</p>			
Fire	<p>Combustible. POISONOUS GASES MAY BE PRODUCED IN FIRE. Wear goggles and self-contained breathing apparatus. Extinguish with dry chemicals or carbon dioxide. Water and foam may be ineffective on fire. Cool exposed containers with water.</p>		
Exposure	<p>CALL FOR MEDICAL AID. DUST Irritating to eyes, nose and throat. Harmful if inhaled. If in eyes, hold eyelids open and flush with plenty of water. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.</p> <p>LIQUID OR SOLID Irritating to skin and eyes. Harmful if swallowed. 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 water or milk. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.</p>		
Water Pollution	<p>Effect of low concentrations on aquatic life is unknown. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.</p>		

1. CORRECTIVE RESPONSE ACTIONS	2. CHEMICAL DESIGNATIONS
Stop discharge Contain Collection Systems: Skim; Dredge	<p>2.1 CG Compatibility Group: Not listed. 2.2 Formula: $(C_6H_5)_2NH$ 2.3 IMO/UN Designation: Currently not available 2.4 DOT ID No.: Not listed 2.5 CAS Registry No.: 122-39-4 2.6 NAERG Guide No.: Not listed 2.7 Standard Industrial Trade Classification: 51462</p>
3. HEALTH HAZARDS	
<p>3.1 Personal Protective Equipment: Respirator; safety goggles or face shield; rubber gloves</p> <p>3.2 Symptoms Following Exposure: Inhalation may irritate mucous membranes. Overexposure, including ingestion of solid or skin contact, may cause fast pulse, hypertension, and bladder trouble. Contact with dust irritates eyes.</p> <p>3.3 Treatment of Exposure: INHALATION: move victim to fresh air. INGESTION: get medical attention; observe for methemoglobinemia. EYES: flush with plenty of water and see physician. SKIN: wash with soap and water.</p> <p>3.4 TLV-TWA: 10 mg/m³</p> <p>3.5 TLV-STEL: Not listed.</p> <p>3.6 TLV-Ceiling: Not listed.</p> <p>3.7 Toxicity by Ingestion: Grade 2; oral LD₅₀ = 2,000 mg/kg (rat)</p> <p>3.8 Toxicity by Inhalation: Currently not available.</p> <p>3.9 Chronic Toxicity: Causes birth defects in rats (polycystic kidneys)</p> <p>3.10 Vapor (Gas) Irritant Characteristics: Currently not available</p> <p>3.11 Liquid or Solid Characteristics: Currently not available</p> <p>3.12 Odor Threshold: Currently not available</p> <p>3.13 IDLH Value: Not listed.</p> <p>3.14 OSHA PEL-TWA: Not listed.</p> <p>3.15 OSHA PEL-STEL: Not listed.</p> <p>3.16 OSHA PEL-Ceiling: Not listed.</p> <p>3.17 EPA AEGL: Not listed</p>	

4. FIRE HAZARDS	7. SHIPPING INFORMATION								
4.1 Flash Point: (liquid) 307°F O.C.	7.1 Grades of Purity: Technical; sometimes shipped as liquid								
4.2 Flammable Limits in Air: Not pertinent	7.2 Storage Temperature: Ambient for solid, elevated for liquid								
4.3 Fire Extinguishing Agents: Foam, dry chemical, carbon dioxide	7.3 Inert Atmosphere: Currently not available								
4.4 Fire Extinguishing Agents Not to Be Used: Water or foam may cause frothing.	7.4 Venting: Open								
4.5 Special Hazards of Combustion Products: Toxic oxides of nitrogen may form in fire.	7.5 IMO Pollution Category: (A)								
4.6 Behavior in Fire: Dust may be explosive if mixed with air in critical proportions and in the presence of a source of ignition.	7.6 Ship Type: 1								
4.7 Auto Ignition Temperature: 1,175°F	7.7 Barge Hull Type: Currently not available								
4.8 Electrical Hazards: Not pertinent									
4.9 Burning Rate: Not pertinent									
4.10 Adiabatic Flame Temperature: Currently not available									
4.11 Stoichiometric Air to Fuel Ratio: 75.0 (calc.)									
4.12 Flame Temperature: Currently not available									
4.13 Combustion Molar Ratio (Reactant to Product): 18.5 (calc.)									
4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed									
5. CHEMICAL REACTIVITY	8. HAZARD CLASSIFICATIONS								
5.1 Reactivity with Water: Not pertinent	8.1 49 CFR Category: Not listed								
5.2 Reactivity with Common Materials: Currently not available	8.2 49 CFR Class: Not pertinent								
5.3 Stability During Transport: Stable	8.3 49 CFR Package Group: Not listed.								
5.4 Neutralizing Agents for Acids and Caustics: Not pertinent	8.4 Marine Pollutant: No								
5.5 Polymerization: Not pertinent	8.5 NFPA Hazard Classification:								
5.6 Inhibitor of Polymerization: Not pertinent	<table border="1"> <thead> <tr> <th>Category</th> <th>Classification</th> </tr> </thead> <tbody> <tr> <td>Health Hazard (Blue)</td> <td>3</td> </tr> <tr> <td>Flammability (Red)</td> <td>1</td> </tr> <tr> <td>Instability (Yellow)</td> <td>0</td> </tr> </tbody> </table>	Category	Classification	Health Hazard (Blue)	3	Flammability (Red)	1	Instability (Yellow)	0
Category	Classification								
Health Hazard (Blue)	3								
Flammability (Red)	1								
Instability (Yellow)	0								
6. WATER POLLUTION	8.6 EPA Reportable Quantity: Not listed.								
6.1 Aquatic Toxicity: Currently not available	8.7 EPA Pollution Category: Not listed.								
6.2 Waterfowl Toxicity: Currently not available	8.8 RCRA Waste Number: Not listed								
6.3 Biological Oxygen Demand (BOD): Currently not available	8.9 EPA FWPCA List: Not listed								
6.4 Food Chain Concentration Potential: None									
6.5 GESAMP Hazard Profile: Bioaccumulation: + Damage to living resources: 3 Human Oral hazard: 0 Human Contact hazard: 0 Reduction of amenities: 0									
9. PHYSICAL & CHEMICAL PROPERTIES									
<p>9.1 Physical State at 15° C and 1 atm: Solid</p> <p>9.2 Molecular Weight: 169.2</p> <p>9.3 Boiling Point at 1 atm: 576°F = 302°C = 575°K</p> <p>9.4 Freezing Point: 127°F = 53°C = 326°K</p> <p>9.5 Critical Temperature: Not pertinent</p> <p>9.6 Critical Pressure: Not pertinent</p> <p>9.7 Specific Gravity: 1.068 at 61°C (liquid)</p> <p>9.8 Liquid Surface Tension: 39.3 dynes/cm = 0.0393 N/m at 60°C</p> <p>9.9 Liquid Water Interfacial Tension: Not pertinent</p> <p>9.10 Vapor (Gas) Specific Gravity: Not pertinent</p> <p>9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent</p> <p>9.12 Latent Heat of Vaporization: Not pertinent</p> <p>9.13 Heat of Combustion: -16,300 Btu/lb = -9,060 cal/g = -379 X 10³ J/kg</p> <p>9.14 Heat of Decomposition: Not pertinent</p> <p>9.15 Heat of Solution: Not pertinent</p> <p>9.16 Heat of Polymerization: Not pertinent</p> <p>9.17 Heat of Fusion: 25.23 cal/g</p> <p>9.18 Limiting Value: Currently not available</p> <p>9.19 Reid Vapor Pressure: Currently not available</p>									

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
141	65.540		N O T P E R T I N E N T		N O T P E R T I N E N T	130 135 140 145 150 155 160 165 170	5.106 4.611 4.172 3.780 3.431 3.118 2.839 2.589 2.364

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		N O T P E R T I N E N T		N O T P E R T I N E N T		N O T P E R T I N E N T