

2,4-DINITROANILINE

DNT

CAUTIONARY RESPONSE INFORMATION				4. FIRE HAZARDS	7. SHIPPING INFORMATION								
Common Synonyms	Solid powder or crystals	Yellow	Musty odor	<p>4.1 Flash Point: 435°F C.C.</p> <p>4.2 Flammable Limits in Air: Currently not available</p> <p>4.3 Fire Extinguishing Agents: For small fires, use water, dry chemical, foam or carbon dioxide</p> <p>4.4 Fire Extinguishing Agents Not to Be Used: Water or foam may cause frothing</p> <p>4.5 Special Hazards of Combustion Products: Vapors and combustion gases are irritating</p> <p>4.6 Behavior in Fire: May explode</p> <p>4.7 Auto Ignition Temperature: Currently not available</p> <p>4.8 Electrical Hazards: Not pertinent</p> <p>4.9 Burning Rate: Not pertinent</p> <p>4.10 Adiabatic Flame Temperature: Currently not available</p> <p>4.11 Stoichiometric Air to Fuel Ratio: 39.3 (calc.)</p> <p>4.12 Flame Temperature: Currently not available</p> <p>4.13 Combustion Molar Ratio (Reactant to Product): 11.5 (calc.)</p> <p>4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed</p>	<p>7.1 Grades of Purity: Technical and Pure</p> <p>7.2 Storage Temperature: Ambient</p> <p>7.3 Inert Atmosphere: No requirement</p> <p>7.4 Venting: Currently not available</p> <p>7.5 IMO Pollution Category: Currently not available</p> <p>7.6 Ship Type: Currently not available</p> <p>7.7 Barge Hull Type: Currently not available</p>								
Keep people away. AVOID CONTACT WITH SOLID AND DUST. Wear goggles, self-contained breathing apparatus, and rubber overclothing (including gloves). Evacuate area in case of large discharge. Call fire department. Notify local health and pollution control agencies.				8. HAZARD CLASSIFICATIONS									
<p>Fire</p> <p>Combustible. May explode if subjected to heat or flame. POISONOUS GAS IS PRODUCED WHEN HEATED. Evacuate surrounding area. Wear goggles, self-contained breathing apparatus, and rubber overclothing (including gloves). Combat fires from safe distance or protected location with unmanned hose holder or monitor nozzle.</p>				<p>8.1 49 CFR Category: Poison</p> <p>8.2 49 CFR Class: 6.1</p> <p>8.3 49 CFR Package Group: II</p> <p>8.4 Marine Pollutant: No</p> <p>8.5 NFPA Hazard Classification:</p> <table> <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>3</td> </tr> </tbody> </table> <p>8.6 EPA Reportable Quantity: Not listed.</p> <p>8.7 EPA Pollution Category: Not listed.</p> <p>8.8 RCRA Waste Number: Not listed</p> <p>8.9 EPA FWC List: Not listed</p>		Category	Classification	Health Hazard (Blue).....	3	Flammability (Red).....	1	Instability (Yellow).....	3
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<p>Exposure</p> <p>CALL FOR MEDICAL AID. DUST. POISONOUS IF INHALED. Move to fresh air.</p> <p>SOLIDS POISONOUS IF SWALLOWED OR IF SKIN IS EXPOSED. Irritating to eyes. Remove contaminated clothing and shoes. Flush affected area 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 and have victim induce vomiting. IF SWALLOWED and victim is UNCONSCIOUS or HAVING CONVULSIONS, do nothing except keep victim warm.</p>				9. PHYSICAL & CHEMICAL PROPERTIES									
<p>Water Pollution</p> <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>				<p>9.1 Physical State at 15° C and 1 atm: Solid</p> <p>9.2 Molecular Weight: 183.12</p> <p>9.3 Boiling Point at 1 atm: Not pertinent</p> <p>9.4 Freezing Point: 368°F = 187°C = 460°K</p> <p>9.5 Critical Temperature: Not pertinent</p> <p>9.6 Critical Pressure: Not pertinent</p> <p>9.7 Specific Gravity: 1.615 at 15°C (solid)</p> <p>9.8 Liquid Surface Tension: Not pertinent</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: Not pertinent</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: Currently not available</p> <p>9.18 Limiting Value: Currently not available</p> <p>9.19 Reid Vapor Pressure: Currently not available</p>									
<p>1. CORRECTIVE RESPONSE ACTIONS</p> <p>Stop discharge Contain Collection Systems: Dredge Do not burn</p>			<p>2. CHEMICAL DESIGNATIONS</p> <p>2.1 CG Compatibility Group: Not listed.</p> <p>2.2 Formula: $\text{NH}_2\text{C}_6\text{H}_3(\text{NO}_2)_2$, 2, 4</p> <p>2.3 IMO/UN Designation: 6.1/1596</p> <p>2.4 DOT ID No.: 1596</p> <p>2.5 CAS Registry No.: 97-02-9</p> <p>2.6 NAERG Guide No.: 153</p> <p>2.7 Standard Industrial Trade Classification: 51140</p>										
<p>3. HEALTH HAZARDS</p> <p>3.1 Personal Protective Equipment: Self-contained breathing apparatus; butyl rubber gloves; eye goggles; plastic lab coat; protective shoes.</p> <p>3.2 Symptoms Following Exposure: May cause headache, nausea, stupor. Irritating to skin and mucous membrane.</p> <p>3.3 Treatment of Exposure: INHALATION: artificial respiration if necessary. INGESTION: induce vomiting; give universal antidote; get prompt medical care. CONTACT WITH SKIN AND EYES: remove victim from exposure; wash exposed skin with warm water and soap; flush eyes with water.</p> <p>3.4 TLV-TWA: Not listed.</p> <p>3.5 TLV-STEL: Not listed.</p> <p>3.6 TLV-Ceiling: Not listed.</p> <p>3.7 Toxicity by Ingestion: Grade 3; oral rate $\text{LD}_{50} = 418 \text{ mg/kg}$</p> <p>3.8 Toxicity by Inhalation: Currently not available.</p> <p>3.9 Chronic Toxicity: Currently not available</p> <p>3.10 Vapor (Gas) Irritancy Characteristics: Not pertinent</p> <p>3.11 Liquid or Solid Characteristics: Causes smarting of the skin and first degree burns on short exposure; may cause second degree burns on long exposure.</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>													
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<p>5. CHEMICAL REACTIVITY</p> <p>5.1 Reactivity with Water: No reaction</p> <p>5.2 Reactivity with Common Materials: Reacts with oxidizing materials.</p> <p>5.3 Stability During Transport: May detonate when heated under confinement</p> <p>5.4 Neutralizing Agents for Acids and Caustics: Not pertinent</p> <p>5.5 Polymerization: Not pertinent</p> <p>5.6 Inhibitor of Polymerization: Not pertinent</p>													
<p>6. WATER POLLUTION</p> <p>6.1 Aquatic Toxicity: Currently not available</p> <p>6.2 Waterfowl Toxicity: Currently not available</p> <p>6.3 Biological Oxygen Demand (BOD): Currently not available</p> <p>6.4 Food Chain Concentration Potential: None</p> <p>6.5 GESAMP Hazard Profile: Not listed</p>													
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<p>10. NOTES</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
NOT PERTINENT			NOT PERTINENT		NOT PERTINENT		NOT PERTINENT

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
INSOLUBLE			NOT PERTINENT		NOT PERTINENT		NOT PERTINENT