

2,6-DINITROPHENOL

DNH

CAUTIONARY RESPONSE INFORMATION			
Common Synonyms beta-Dinitrophenol o-o-Dinitrophenol DNP	Solid crystal	Yellow	Sweet, musty odor Sinks and mixes slowly with water.
Keep people away. AVOID CONTACT WITH SOLID AND DUST. Avoid inhalation. Wear goggles, self-contained breathing apparatus, and rubber overclothing (including gloves). Evacuate area in case of large discharges. Shut off ignition sources and call fire department. Notify local health and pollution control agencies. Protect water intakes.			
Fire	Flammable. 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.		
Exposure CALL FOR MEDICAL AID. DUST. POISONOUS IF INHALED OR IF SKIN IS EXPOSED. Move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. SOLID POISONOUS 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.			
Water Pollution	HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.		

1. CORRECTIVE RESPONSE ACTIONS	2. CHEMICAL DESIGNATIONS
Dilute and disperse Stop discharge Contain Collection Systems: Pump; Dredge Do not burn	2.1 CG Compatibility Group: Currently not available; Phenol 2.2 Formula: (NO ₂) ₂ C ₆ H ₄ OH 2.3 IMO/UN Designation: 6.1/1599 2.4 DOT ID No.: 1599 2.5 CAS Registry No.: 573-56-8 2.6 NAERG Guide No.: 153 2.7 Standard Industrial Trade Classification: 51140
3. HEALTH HAZARDS	
<p>3.1 Personal Protective Equipment: Safety glasses, self-contained breathing apparatus, protective clothing, butyl rubber gloves and protective shoes.</p> <p>3.2 Symptoms Following Exposure: INHALATION, INGESTION AND SKIN ABSORPTION: Headache, anorexia, nausea, vomiting, abdominal pain, diarrhea, fever, pain in chest, difficult breathing, profuse sweating and thirst, dizziness and fatigue. SKIN: Discoloration and irritation. Corrosive to skin.</p> <p>3.3 Treatment of Exposure: Call a doctor. INHALATION: Remove from contaminated area. Administer oxygen and artificial respiration if needed. EYES: Flush with water. SKIN: Wash with soap and water. INGESTION: Gastric lavage and saline cathartics. OTHER: To reduce fever, use cold packs and alcohol baths.</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 4; LD₅₀ below 50 mg/kg</p> <p>3.8 Toxicity by Inhalation: Currently not available.</p> <p>3.9 Chronic Toxicity: Liver and kidney damage as well as development of cataracts. May cause skin discoloration and dermatitis.</p> <p>3.10 Vapor (Gas) Irritant 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: 0.021 ppm.</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: Currently not available	7.1 Grades of Purity: Mixture 2, 3-, 2, 4-, and 2, 6-isomers.
4.2 Flammable Limits in Air: Currently not available	7.2 Storage Temperature: Avoid heat.
4.3 Fire Extinguishing Agents: Water, dry chemical, CO ₂ , foam	7.3 Inert Atmosphere: Currently not available
4.4 Fire Extinguishing Agents Not to Be Used: Not pertinent	7.4 Venting: Currently not available
4.5 Special Hazards of Combustion Products: Dissociation into irritating nitrogen oxides.	7.5 IMO Pollution Category: Currently not available
4.6 Behavior in Fire: Can explode when heated under confinement.	7.6 Ship Type: Currently not available
4.7 Auto Ignition Temperature: Currently not available	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: 30.9 (calc.)	
4.12 Flame Temperature: Currently not available	
4.13 Combustion Molar Ratio (Reactant to Product): 10.0 (calc.)	
4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed	
8. HAZARD CLASSIFICATIONS	9. PHYSICAL & CHEMICAL PROPERTIES
8.1 49 CFR Category: Poison	9.1 Physical State at 15° C and 1 atm: Solid
8.2 49 CFR Class: 6.1	9.2 Molecular Weight: 184.11
8.3 49 CFR Package Group: II	9.3 Boiling Point at 1 atm: Not pertinent
8.4 Marine Pollutant: Yes	9.4 Freezing Point: 145.4–147.2°F = 63–64°C = 336.2–337.2°K
8.5 NFPA Hazard Classification: Not listed	9.5 Critical Temperature: Not pertinent
8.6 EPA Reportable Quantity: Not listed.	9.6 Critical Pressure: Not pertinent
8.7 EPA Pollution Category: Not listed.	9.7 Specific Gravity: (est.) 1.68
8.8 RCRA Waste Number: Not listed	9.8 Liquid Surface Tension: Not pertinent
8.9 EPA FWPCA List: Not listed	9.9 Liquid Water Interfacial Tension: Not pertinent
5. CHEMICAL REACTIVITY	9.10 Vapor (Gas) Specific Gravity: 6.35
5.1 Reactivity with Water: No reaction	9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent
5.2 Reactivity with Common Materials: No reaction	9.12 Latent Heat of Vaporization: Not pertinent
5.3 Stability During Transport: Stable	9.13 Heat of Combustion: -6156 Btu/lb = -3420 cal/g = -143.1 X 10 ³ J/kg
5.4 Neutralizing Agents for Acids and Caustics: Currently not available	9.14 Heat of Decomposition: Not pertinent
5.5 Polymerization: Not pertinent	9.15 Heat of Solution: Not pertinent
5.6 Inhibitor of Polymerization: Not pertinent	9.16 Heat of Polymerization: Not pertinent
6. WATER POLLUTION	9.17 Heat of Fusion: Currently not available
6.1 Aquatic Toxicity: 46.3–51.6 ppm/48 hr/bluegill/TL ₅₀ /20°C	9.18 Limiting Value: Currently not available
6.2 Waterfowl Toxicity: 25 ppm	9.19 Reid Vapor Pressure: 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: Not listed	

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
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
SLIGHTLY SOLUBLE			NOT PERTINENT		NOT PERTINENT		NOT PERTINENT