

DINITROCRESOL

DNC

CAUTIONARY RESPONSE INFORMATION

Common Synonyms 2,6-Dinitro-o-cresol 3,5-Dinitro-o-cresol 4,6-Dinitro-o-cresol		Solid Yellow Sinks in water.
KEEP PEOPLE AWAY. AVOID CONTACT WITH SOLID AND DUST. Avoid inhalation. Wear goggles, dust respirator and rubber overclothing (including gloves). Shut off ignition sources and call fire department. Notify local health and pollution control agencies. Protect water intakes.		
Fire	Combustible. POISONOUS GASES MAY BE PRODUCED IN FIRE. Containers may explode in fire. Wear goggles and self-contained breathing apparatus. Extinguish with water, dry chemicals, foam, or carbon dioxide.	
Exposure	CALL FOR MEDICAL AID. DUST POISONOUS IF INHALED OR IF SKIN IS EXPOSED. If inhaled will cause loss of consciousness. 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. SOLID POISONOUS IF SWALLOWED OR IF SKIN IS EXPOSED. If swallowed will cause nausea, vomiting or loss of consciousness. 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 and have victim induce vomiting. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.	
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

Stop discharge
 Collection Systems: Dredge
 Do not burn

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: Not listed.
 2.2 Formula: $C_7H_5N_2O_5(OH)$
 2.3 IMO/UN Designation: 6.1/1598
 2.4 DOT ID No.: 1598
 2.5 CAS Registry No.: 1335-85-9
 2.6 NAERG Guide No.: 153
 2.7 Standard Industrial Trade Classification: 51140

3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Dust mask; goggles or face shield; protective clothing; rubber gloves
 3.2 **Symptoms Following Exposure:** Very high fever is prominent sign of intoxication following absorption of a toxic dose of dinitro-o-cresol. Inhalation of dust may cause same symptoms as ingestion. Ingestion causes a feeling of well-being, profuse sweating, yellow urine, increased basal metabolism, marked thirst, vomiting, convulsions, coma, and death. Contact with eyes causes irritation. Contact with skin causes local necrosis and dangerous systemic effects. Note: Some authorities recommend that all exposed workers have blood tests regularly to determine the level of this substance. Further contact should be avoided if the level exceeds 20 micrograms per gram.
 3.3 **Treatment of Exposure:** INHALATION: apply ice packs to promote heat loss; replace fluids and electrolytes; allay anxiety. INGESTION: same as for inhalation; also, give large amounts of water and induce vomiting; get medical attention. EYES: flush with water for at least 15 min. SKIN: wash thoroughly with soap and water.
 3.4 TLV-TWA: 0.2 mg/m³
 3.5 TLV-STEL: Not listed.
 3.6 TLV-Ceiling: Not listed.
 3.7 Toxicity by Ingestion: Grade 4; LD₅₀ < 50 mg/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: 5.0 mg/m³
 3.14 OSHA PEL-TWA: 0.2 mg/m³
 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: Not pertinent
 4.2 Flammable Limits in Air: Not pertinent
 4.3 Fire Extinguishing Agents: Water, foam, dry chemical, carbon dioxide
 4.4 Fire Extinguishing Agents Not to Be Used: Currently not available
 4.5 Special Hazards of Combustion Products: Toxic oxides of nitrogen may form in fire.
 4.6 Behavior in Fire: Containers may explode.
 4.7 Auto Ignition Temperature: Not pertinent
 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: 38.1 (calc.)
 4.12 Flame Temperature: Currently not available
 4.13 Combustion Molar Ratio (Reactant to Product): 12.0 (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: Currently not available
 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: 0.00032 ppm/4 days/naiads/LC₅₀/fresh water
 6.2 Waterfowl Toxicity: Currently not available
 6.3 Biological Oxygen Demand (BOD): Currently not available
 6.4 Food Chain Concentration Potential: None
 6.5 GESAMP Hazard Profile:
 Bioaccumulation: T
 Damage to living resources: 4
 Human Oral hazard: 3
 Human Contact hazard: II
 Reduction of amenities: XXX

7. SHIPPING INFORMATION

- 7.1 Grades of Purity: Technical, 90-95%; Paste containing 55-60% water; pure.
 7.2 Storage Temperature: Ambient
 7.3 Inert Atmosphere: No requirement
 7.4 Venting: Open
 7.5 IMO Pollution Category: Currently not available
 7.6 Ship Type: Currently not available
 7.7 Barge Hull Type: Currently not available

8. HAZARD CLASSIFICATIONS

- 8.1 49 CFR Category: Poison
 8.2 49 CFR Class: 6.1
 8.3 49 CFR Package Group: II
 8.4 Marine Pollutant: Yes
 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: Solid
 9.2 Molecular Weight: 198
 9.3 Boiling Point at 1 atm: Not pertinent
 9.4 Freezing Point: 176-187°F = 80-86°C = 353-359°K
 9.5 Critical Temperature: Not pertinent
 9.6 Critical Pressure: Not pertinent
 9.7 Specific Gravity: (est.) >1.1 at 20°C (solid)
 9.8 Liquid Surface Tension: Not pertinent
 9.9 Liquid Water Interfacial Tension: Not pertinent
 9.10 Vapor (Gas) Specific Gravity: Not pertinent
 9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent
 9.12 Latent Heat of Vaporization: Not pertinent
 9.13 Heat of Combustion: -7,050 Btu/lb = -3,920 cal/g = -164 X 10⁶ J/kg
 9.14 Heat of Decomposition: Currently not available
 9.15 Heat of Solution: Not pertinent
 9.16 Heat of Polymerization: Not pertinent
 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
	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		N O T P E R T I N E N T

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