

1,1-DICHLORO-1-NITROETHANE

DCT

CAUTIONARY RESPONSE INFORMATION

Common Synonyms	Liquid	Colorless	Unpleasant odor that causes tears
<p>Keep people away. AVOID CONTACT WITH LIQUID AND VAPOR. Wear rubber over clothing (including gloves), goggles, and self-contained breathing apparatus. Shut off ignition sources. Call fire department. Notify local health and pollution control agencies.</p>			
Fire	<p>COMBUSTIBLE. Wear full protective clothing and self-contained breathing apparatus. Extinguish with dry chemical, CO₂, or alcohol foam.</p>		
Exposure	<p>CALL FOR MEDICAL AID. Move victim to fresh air. Remove contaminated clothing and shoes. Wash affected areas with plenty of soap and water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water, then induce vomiting. If breathing has stopped, perform artificial respiration.</p>		
Water Pollution	<p>Effects 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>1. CORRECTIVE RESPONSE ACTIONS Stop discharge Collection Systems: Dredge</p>	<p>2. CHEMICAL DESIGNATIONS 2.1 CG Compatibility Group: 42; Nitrocompounds 2.2 Formula: CH₂CCl₂NO₂ 2.3 IMO/UN Designation: Not listed. 2.4 DOT ID No.: Not listed. 2.5 CAS Registry No.: Currently not available 2.6 NAERG Guide No.: 153 2.7 Standard Industrial Trade Classification: 51138</p>
<p>3. HEALTH HAZARDS</p> <p>3.1 Personal Protective Equipment: Impervious clothing, gloves, and face shields. In enclosed areas where concentrations could exceed 10 ppm, use self-contained breathing apparatus.</p> <p>3.2 Symptoms Following Exposure: High concentrations cause lacrimation, increased nasal secretions, coughing, pulmonary rales, and weakness in animals. No human experience is reported.</p> <p>3.3 Treatment of Exposure: Call for medical aid. EYES: Flush immediately with copious amounts of water, lifting the lids occasionally. SKIN: Wash the contaminated area with soap and water. Remove contaminated clothing. INGESTION: If victim is conscious, give large quantities of water immediately. After swallowing the water, induce vomiting. If not conscious, do nothing except keep victim warm and quiet.</p> <p>3.4 TLV-TWA: 2 ppm 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Currently not available 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Exposure of animals produced severe irritation of lungs with severe breathing difficulties, which may be delayed in onset. Liver, heart, kidney, and blood vessel damage were also reported in animals. 3.10 Vapor (Gas) Irritant Characteristics: Vapors cause moderate irritation such that personnel will find high concentrations unpleasant. The effect is temporary. 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. 3.12 Odor Threshold: Currently not available 3.13 IDLH Value: 25 ppm 3.14 OSHA PEL-TWA: Not listed. 3.15 OSHA PEL-STEL: Not listed. 3.16 OSHA PEL-Ceiling: 10 ppm 3.17 EPA AEGL: Not listed</p>	

4. FIRE HAZARDS

- 4.1 **Flash Point:** 136°F C.C.
- 4.2 **Flammable Limits in Air:** Currently not available
- 4.3 **Fire Extinguishing Agents:** Dry chemical, carbon dioxide, or alcohol foam.
- 4.4 **Fire Extinguishing Agents Not to Be Used:** Water.
- 4.5 **Special Hazards of Combustion**
Products: Toxic gases and vapors, such as nitrogen oxides, hydrogen chloride, and carbon monoxide, may be released in a fire.
- 4.6 **Behavior in Fire:** Currently not available
- 4.7 **Auto Ignition Temperature:** Currently not available
- 4.8 **Electrical Hazards:** Currently not available
- 4.9 **Burning Rate:** Currently not available
- 4.10 **Adiabatic Flame Temperature:** Currently not available
- 4.11 **Stoichiometric Air to Fuel Ratio:** 11.9 (calc.)
- 4.12 **Flame Temperature:** Currently not available
- 4.13 **Combustion Molar Ratio (Reactant to Product):** 5.0 (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:** Contact with strong oxidizers may cause fires and explosions.
- 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:** Currently not available
- 6.2 **Waterfowl Toxicity:** 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

7. SHIPPING INFORMATION

- 7.1 **Grades of Purity:** Technical grades.
- 7.2 **Storage Temperature:** Ambient.
- 7.3 **Inert Atmosphere:** No requirement.
- 7.4 **Venting:** Not listed.
- 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:** Not listed.
- 8.2 **49 CFR Class:** Not pertinent.
- 8.3 **49 CFR Package Group:** Not listed.
- 8.4 **Marine Pollutant:** No
- 8.5 **NFPA Hazard Classification:**

Category	Classification
Health Hazard (Blue)	0
Flammability (Red)	2
Instability (Yellow)	0
- 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:** Liquid
- 9.2 **Molecular Weight:** 144
- 9.3 **Boiling Point at 1 atm:** 257°F = 125°C = 398°K
- 9.4 **Freezing Point:** Currently not available
- 9.5 **Critical Temperature:** Currently not available
- 9.6 **Critical Pressure:** Currently not available
- 9.7 **Specific Gravity:** 1.42
- 9.8 **Liquid Surface Tension:** Currently not available
- 9.9 **Liquid Water Interfacial Tension:** Currently not available
- 9.10 **Vapor (Gas) Specific Gravity:** 5.0
- 9.11 **Ratio of Specific Heats of Vapor (Gas):** Currently not available
- 9.12 **Latent Heat of Vaporization:** Currently not available
- 9.13 **Heat of Combustion:** Currently not available
- 9.14 **Heat of Decomposition:** Currently not available
- 9.15 **Heat of Solution:** Currently not available
- 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
	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
68	0.250	68	0.290	68	0.00737		C U R R E N T L Y N O T A V A I L A B L E