CAUTIONARY RESPONSE INFORMATION

1. CORRECTIVE RESPONSE ACTIONS
   - Dilute and dispense
   - Stop discharge
   - Collection Systems: Pump; Dredge
   - Do not burn

2. CHEMICAL DESIGNATIONS
   - GC Compatibility Group: Not listed.
   - IM/UN Designation: Not listed
   - CAS Registry No.: 79-24-3
   - NAPAC Guide No.: 129
   - Standard Industrial Trade Classification: 5140

3. HEALTH HAZARDS
   - 3.1 Personal Protective Equipment: Supplied air or self-contained respiratory; goggles or face shield; rubber gloves
   - 3.2 Symptoms Following Exposure: Inhalation causes moderate irritation of respiratory tract. Inhalation causes irritation of mouth and stomach. Contact with liquid causes irritation of eyes and mild irritation of skin.
   - 3.3 Treatment of Exposure: INHALATION: In case of pulmonary symptoms, give bed rest and oxygen; obtain medical attention at once. INGESTION: give large amount of water. EYES or SKIN: flush with water.
   - 3.4 TLV-TWA: 100 ppm
   - 3.5 TLV-STEL: Not listed.
   - 3.6 TLV-Ceiling: Not listed.
   - 3.7 Toxicity by Ingestion: Grade 2; oral LD50: 880 mg/kg (mouse)
   - 3.8 Toxicity by Inhalation: Currently not available.
   - 3.9 Chronic Toxicity: Currently not available
   - 3.10 Vapor (Gas) Irritant Characteristics: Vapors cause moderate irritation such that personnel will find high concentration unpleasant. The effect is temporary.
   - 3.11 Liquid or Solid Characteristics: Minimum hazard. If spilled on clothing and allowed to remain, may cause smearing and reddening of skin.
   - 3.12 Odor Threshold: 163 ppm
   - 3.13 IDSH Value: 1,000 ppm
   - 3.14 OSHA PEL-TWA: 100 ppm.
   - 3.15 OSHA PEL-STEL: Not listed.
   - 3.16 OSHA PEL-Ceiling: Not listed.
   - 3.17 EPA AEGIL: Not listed

4. FIRE HAZARDS
   - 4.1 Flash Point: 105°F O.C. 87°F C.C.
   - 4.2 Flammable Limits in Air: 3.4% (LFL)
   - 4.3 Fire Extinguishing Agents: Foam, carbon dioxide, or dry chemical
   - 4.4 Fire Extinguishing Agents Not to Be Used: Water may be ineffective; “alcohol” foam is not effective.
   - 4.5 Special Hazards of Combustion Products: Toxic oxides of nitrogen may form in fire.
   - 4.6 Behavior in Fire: Currently not available
   - 4.7 Auto Ignition Temperature: 278°F
   - 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: 15.5 (calc.)
   - 4.12 Flame Temperature: Currently not available
   - 4.13 Combustion Molar Ratio (Reactant to Product): 5.5 (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: May attack some forms of plastics
   - 5.3 Stability During Transport: Stable
   - 5.4 Neutralizing Agents for Acids and Caustics: Not pertinent
   - 5.5 Polymerization: Not pertinent
   - 5.6 Initiator 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: None
   - 6.5 GESAMP Hazard Profile: Bioaccumulation: 0, Damage to living resources: 1, Human Oral hazard: 1, Human Contact hazard: 1, Reduction of amenities: X

7. SHIPPING INFORMATION
   - 7.1 Grades of Purity: Commercial, 95.5 %
   - 7.2 Storage Temperature: Ambient
   - 7.3 Inert Atmosphere: No requirement
   - 7.4 Venting: Open (fume arrestor)
   - 7.5 IMO Pollution Category: D
   - 7.6 Ship Type: 3
   - 7.7 Barge Hull Type: Currently not available

8. HAZARD CLASSIFICATIONS
   - 8.1 49 CFR Category: Flammable liquid
   - 8.2 49 CFR Class: 3
   - 8.3 49 CFR Package Group: III
   - 8.4 Marine Pollutant: No
   - 8.5 NFPA Hazard Classification:
     - Category Classification
     - Health Hazard (Blue)............ 1
     - Flammability (Red)............ 3
     - Instability (Yellow)............ 3
   - 8.6 EPA Reportable Quantity: Not listed.
   - 8.7 EPA Pollution Category: Not listed.
   - 8.8 ROR Waste Number: Not listed.
   - 8.9 EPA P&PCA List: Not listed

9. PHYSICAL & CHEMICAL PROPERTIES
   - 9.1 Physical State at 15°C and 1 atm: Liquid
   - 9.2 Molecular Weight: 75.07
   - 9.3 Boiling Point at 1 atm: 237°F = 114°C = 387°F
   - 9.4 Freezing Point: –130°F = –90°C = 183 K
   - 9.5 Critical Temperature: Currently not available
   - 9.6 Critical Pressure: Currently not available
   - 9.7 Specific Gravity: 1.05 at 20°C (liquid)
   - 9.8 Liquid Surface Tension: 31.3 dynes/cm = 0.0313 N/m at 20°C
   - 9.9 Liquid Water Interfacial Tension: Not pertinent
   - 9.10 Vapor (Gas) Specific Gravity: 2.6
   - 9.11 Ratio of Specific Heats of Vapor (Gas): (joule)/1.115 at 20°C
   - 9.12 Latent Heat of Vaporization: 211 Btu/lb = 117 cal/g = 4.90 X 10^6 J/kg
   - 9.14 Heat of Decomposition: Not pertinent
   - 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 Foil Vapor Pressure: Currently not available

NOTES

NITROETHANE

JUNE 1999
# Nitroethane Properties

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<th>Pounds per cubic foot</th>
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**June 1999**