

ZECTRAN

ZEC

CAUTIONARY RESPONSE INFORMATION

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|---|---|--------------|----------|
| Common Synonyms Mexacarbonate Zactran Zectane Zextran | Solid, crystals or solution | White to tan | Odorless |
| <p>KEEP PEOPLE AWAY. AVOID CONTACT WITH SOLID. Wear goggles, self-contained breathing apparatus, and rubber overclothing (including gloves). Notify local health and pollution control agencies. Protect water intakes.</p> | | | |
| Fire | Fire data not available. Usually dissolved in combustible liquid. | | |
| Exposure | CALL FOR MEDICAL AID. SOLID OR SOLUTION. POISONOUS IF SWALLOWED, INHALED OR IF SKIN IS EXPOSED. Irritating to eyes. Move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. 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. | | |

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| <p>1. CORRECTIVE RESPONSE ACTIONS Stop discharge Contain Collection Systems: Pump; Dredge</p> | <p>2. CHEMICAL DESIGNATIONS 2.1 CG Compatibility Group: Not listed. 2.2 Formula: C₁₂H₁₈N₂O₂ 2.3 IMO/UN Designation: 6.1/1615 (>1%); 9/1615 (<1%) 2.4 DOT ID No.: 2757 2.5 CAS Registry No.: Currently not available 2.6 NAERG Guide No.: 151 2.7 Standard Industrial Trade Classification: 51471</p> |
| <p>3. HEALTH HAZARDS</p> <p>3.1 Personal Protective Equipment: Natural rubber gloves, respirator or gas mask and goggles.</p> <p>3.2 Symptoms Following Exposure: EYES: Slight irritation. INGESTION, INHALATION, OR SKIN ABSORPTION: Nausea, vomiting, abdominal cramps, diarrhea, and excessive salivation and sweating. Lassitude and weakness. Rhinorrhea and tightness in chest. Loss of muscle coordination, fasciculations and muscle twitching, random jerky movements, incontinence, convulsions and coma. Death due to respiratory arrest of central origin, respiratory paralysis, intense bronchoconstriction or all three.</p> <p>3.3 Treatment of Exposure: Call a physician. Move to fresh air. If needed give artificial respiration or oxygen. Eyes: Irrigate with water or saline. SKIN: Wash with soap and water or better still with 95% ethyl alcohol. INGESTION: Gastric lavage or syrup of ipecac. OTHER: One to 4 mg atropine sulfate IM or IV. Repeat at 15-minute intervals until full atropinization.</p> <p>3.4 TLV-TWA: Not listed. 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Grade 4; LD₅₀ below 50 mg/kg. 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: May produce carcinogenic material when metabolized. 3.10 Vapor (Gas) Irritant Characteristics: Currently not available 3.11 Liquid or Solid Characteristics: No appreciable hazard. Practically harmless to skin. 3.12 Odor Threshold: Odorless 3.13 IDLH Value: Not listed. 3.14 OSHA PEL-TWA: Not listed. 3.15 OSHA PEL-STEL: Not listed. 3.16 OSHA PEL-Ceiling: Not listed. 3.17 EPA AEGL: Not listed</p> | |

4. FIRE HAZARDS

- 4.1 **Flash Point:** Currently not available
- 4.2 **Flammable Limits in Air:** Currently not available
- 4.3 **Fire Extinguishing Agents:** Currently not available
- 4.4 **Fire Extinguishing Agents Not to Be Used:** Currently not available
- 4.5 **Special Hazards of Combustion Products:** Currently not available
- 4.6 **Behavior in Fire:** Unstable to heat.
- 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:** 83.3 (calc.)
- 4.12 **Flame Temperature:** Currently not available
- 4.13 **Combustion Molar Ratio (Reactant to Product):** 23.0 (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:** Currently not available
- 5.5 **Polymerization:** Currently not available
- 5.6 **Inhibitor of Polymerization:** Currently not available

6. WATER POLLUTION

- 6.1 **Aquatic Toxicity:**
 96-hour LC₅₀ for most common fish = 1.73-19.14 ppm
 48-hour LC₅₀ for fish food organisms = 0.01-0.076 ppm
- 6.2 **Waterfowl Toxicity:** Oral duck LD₅₀ = 3 mg/kg Oral Canada goose LD₅₀ = 2.64 mg/kg Lesser Sandhill Crane LD₅₀ = 1.0-4.5 mg/kg
- 6.3 **Biological Oxygen Demand (BOD):** At a rate of 10 mg of 0.1% solution in acetone per liter, 85% was gone after one week and all after two weeks.
- 6.4 **Food Chain Concentration Potential:** Currently not available
- 6.5 **GESAMP Hazard Profile:**
 Bioaccumulation: -
 Damage to living resources: 4
 Human Oral hazard: 3
 Human Contact hazard: I
 Reduction of amenities: XX

7. SHIPPING INFORMATION

- 7.1 **Grades of Purity:** 93.3% 91% (technical)
- 7.2 **Storage Temperature:** Currently not available
- 7.3 **Inert Atmosphere:** Currently not available
- 7.4 **Venting:** Currently not available
- 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:** 1000 pounds
- 8.7 **EPA Pollution Category:** C
- 8.8 **RCRA Waste Number:** P128
- 8.9 **EPA FWPCA List:** Yes

9. PHYSICAL & CHEMICAL PROPERTIES

- 9.1 **Physical State at 15° C and 1 atm:** Solid
- 9.2 **Molecular Weight:** 222.29
- 9.3 **Boiling Point at 1 atm:** Not pertinent (decomposes)
- 9.4 **Freezing Point:** 185°F = 85°C = 358.2°K
- 9.5 **Critical Temperature:** Currently not available
- 9.6 **Critical Pressure:** Currently not available
- 9.7 **Specific Gravity:** Currently not available
- 9.8 **Liquid Surface Tension:** Not pertinent
- 9.9 **Liquid Water Interfacial Tension:** Not pertinent
- 9.10 **Vapor (Gas) Specific Gravity:** 7.67
- 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:** Not pertinent
- 9.16 **Heat of Polymerization:** Currently not available
- 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 | | C U R R E N T L Y N O T A V A I L A B L E |