

MOLYBDIC TRIOXIDE

MTO

| CAUTIONARY RESPONSE INFORMATION | | | |
|--|--|------------------------------|----------|
| Common Synonyms Molybdenum trioxide Molybdc anhydride | Solid | Colorless to white or yellow | Odorless |
| Sinks in water. | | | |
| Keep people away. Avoid contact with solid. Notify local health and pollution control agencies. Protect water intakes. | | | |
| Fire | Not flammable. | | |
| Exposure | CALL FOR MEDICAL AID. SOLID Irritating to skin and eyes. Harmful 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. 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 | 2. CHEMICAL DESIGNATIONS | 3. HEALTH HAZARDS | 4. FIRE HAZARDS | 5. CHEMICAL REACTIVITY | 6. WATER POLLUTION | 7. SHIPPING INFORMATION | 8. HAZARD CLASSIFICATIONS | 9. PHYSICAL & CHEMICAL PROPERTIES |
|--|---|--|--|---|---|--|---------------------------|-----------------------------------|
| Stop discharge Collection Systems: Dredge | 2.1 CG Compatibility Group: Not listed. 2.2 Formula: MoO ₃ 2.3 IMO/UN Designation: Not listed 2.4 DOT ID No.: Not listed 2.5 CAS Registry No.: 1313-27-5 2.6 NAERG Guide No.: Not listed 2.7 Standard Industrial Trade Classification: 52269 | 3.1 Personal Protective Equipment: U.S. Bu. Mines approved respirator; safety glasses or face shield; protective gloves 3.2 Symptoms Following Exposure: Compound is relatively nontoxic. Dust irritates eyes. 3.3 Treatment of Exposure: No treatment necessary except those applicable to any nontoxic dust. EYES: flush with water. 3.4 TLV-TWA: 5 mg/m ³ as Mo 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Grade 3; LD ₅₀ = 50-500 mg/kg 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: 1000 mg Mo/m ³ 3.14 OSHA PEL-TWA: 5 mg/m ³ as Mo 3.15 OSHA PEL-STEL: Not listed. 3.16 OSHA PEL-Ceiling: Not listed. 3.17 EPA AEGL: Not listed | 4.1 Flash Point: Not flammable 4.2 Flammable Limits in Air: Not flammable 4.3 Fire Extinguishing Agents: Not pertinent 4.4 Fire Extinguishing Agents Not to Be Used: Not pertinent 4.5 Special Hazards of Combustion Products: Currently not available 4.6 Behavior in Fire: Currently not available 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: Not pertinent 4.12 Flame Temperature: Currently not available 4.13 Combustion Molar Ratio (Reactant to Product): Not pertinent 4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed | 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 | 6.1 Aquatic Toxicity: 70 ppm/96 hr/fathead minnow/TL _W /soft water 6.2 Waterfowl Toxicity: Currently not available 6.3 Biological Oxygen Demand (BOD): None 6.4 Food Chain Concentration Potential: Not listed 6.5 GESAMP Hazard Profile: Not listed | 7.1 Grades of Purity: Technical, 59.8-61.6%; Reagent 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 | | |

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 |
| 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 | 0.011 0.022 0.033 0.044 0.056 0.067 0.078 0.089 0.100 0.111 0.122 0.133 0.144 0.155 0.167 0.178 0.189 0.200 0.211 0.222 0.233 0.244 0.255 0.267 0.278 0.289 | | NOT PERTINENT | | NOT PERTINENT | | NOT PERTINENT |