

BROMOFORM

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CAUTIONARY RESPONSE INFORMATION				4. FIRE HAZARDS	7. SHIPPING INFORMATION
Common Synonyms Formyl tribromide Methane, tribromo- Methylene tribromide Methylene tribromide Methyl tribromide	Liquid Sinks and very slowly mixes with water.	Colorless to yellow Sweetish, chloroform-like		<p>4.1 Flash Point: Not flammable</p> <p>4.2 Flammable Limits in Air: Not pertinent</p> <p>4.3 Fire Extinguishing Agents: Not flammable. Extinguish adjacent small fires: dry chemical, CO₂, water spray or foam; large fires: water spray, fog or foam.</p> <p>4.4 Fire Extinguishing Agents Not to Be Used: Not pertinent</p> <p>4.5 Special Hazards of Combustion Products: Not pertinent</p> <p>4.6 Behavior in Fire: May decompose to produce toxic gases and vapor such as hydrogen bromide and bromine.</p> <p>4.7 Auto Ignition Temperature: Not pertinent</p> <p>4.8 Electrical Hazards: Currently not available</p> <p>4.9 Burning Rate: Not pertinent</p> <p>4.10 Adiabatic Flame Temperature: Not pertinent</p> <p>4.11 Stoichiometric Air to Fuel Ratio: Not pertinent</p> <p>4.12 Flame Temperature: Currently not available</p> <p>4.13 Combustion Molar Ratio (Reactant to Product): Not pertinent</p> <p>4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed</p>	<p>7.1 Grades of Purity: 96%; 99%</p> <p>7.2 Storage Temperature: Ambient</p> <p>7.3 Inert Atmosphere: Currently not available</p> <p>7.4 Venting: Currently not available</p> <p>7.5 IMO Pollution Category: Currently not available</p> <p>7.6 Ship Type: Currently not available</p> <p>7.7 Barge Hull Type: Currently not available</p>
Fire					8. HAZARD CLASSIFICATIONS
					<p>8.1 49 CFR Category: Keep Away From Food</p> <p>8.2 49 CFR Class: 6.1</p> <p>8.3 49 CFR Package Group: III</p> <p>8.4 Marine Pollutant: Yes</p> <p>8.5 NFPA Hazard Classification: Not listed</p> <p>8.6 EPA Reportable Quantity: 100 pounds</p> <p>8.7 EPA Pollution Category: B</p> <p>8.8 RCRA Waste Number: U225</p> <p>8.9 EPA FWPCA List: Not listed</p>
Exposure					9. PHYSICAL & CHEMICAL PROPERTIES
					<p>9.1 Physical State at 15° C and 1 atm: Liquid</p> <p>9.2 Molecular Weight: 252.75</p> <p>9.3 Boiling Point at 1 atm: 302.9°F. = 150.5°C. = 423.7°K</p> <p>9.4 Freezing Point: 47.3°F. = 8.5°C. = 281.7°K.</p> <p>9.5 Critical Temperature: 796°F. = 425°C. = 698°K. (est)</p> <p>9.6 Critical Pressure: Currently not available</p> <p>9.7 Specific Gravity: 2.8912 at 20°C.</p> <p>9.8 Liquid Surface Tension: 41.53 dynes/cm = .04153 N/m at 20°C.</p> <p>9.9 Liquid Water Interfacial Tension: Currently not available</p> <p>9.10 Vapor (Gas) Specific Gravity: 8.7</p> <p>9.11 Ratio of Specific Heats of Vapor (Gas): Currently not available</p> <p>9.12 Latent Heat of Vaporization: 68.9 Btu/lb = 38.3 cal/g = 1.60X10⁷ KJ/kg</p> <p>9.13 Heat of Combustion: Not pertinent</p> <p>9.14 Heat of Decomposition: Not pertinent</p> <p>9.15 Heat of Solution: Currently not available</p> <p>9.16 Heat of Polymerization: Not pertinent</p> <p>9.17 Heat of Fusion: Currently not available</p> <p>9.18 Limiting Value: Currently not available</p> <p>9.19 Reid Vapor Pressure: Currently not available</p>
Water Pollution					
1. CORRECTIVE RESPONSE ACTIONS Stop discharge Contain Collection Systems: Pump; Dredge Dilute and disperse	2. CHEMICAL DESIGNATIONS 2.1 CG Compatibility Group: Not listed. 2.2 Formula: CHBr ₃ 2.3 IMO/UN Designation: 6.1/2515 2.4 DOT ID No.: 2515 2.5 CAS Registry No.: 75-25-2 2.6 NAERG Guide No.: 159 2.7 Standard Industrial Trade Classification: 51138	3. HEALTH HAZARDS 3.1 Personal Protective Equipment: Wear positive pressure breathing apparatus and special protective clothing. 3.2 Symptoms Following Exposure: Harmful if inhaled, swallowed, contacts skin or eyes or is absorbed through skin. It is a lacrimator, respiratory irritant, a narcotic and an hepatotoxin. Prolonged exposure may cause dermatitis. Inhalation causes irritation of nose and throat; provokes the flow of tears and saliva and reddening of the face. Ingestion may cause dizziness, disorientation and slurred speech, unconsciousness and death. 3.3 Treatment of Exposure: INHALATION: Move victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. EYES OR SKIN: Flush with running water for at least 15 min.; hold eyelids open if necessary. Wash skin with soap and water. Remove and isolate contaminated clothing and shoes at the site. INGESTION: If victim is conscious, have victim take syrup of ipecac to induce vomiting. 3.4 TLV-TWA: 0.5 ppm (skin) 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Grade 2; LD ₅₀ = 1.147 g/kg (rat) 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Causes mutagenic and tumorigenic effects. May cause liver damage and depression of the central nervous system. 3.10 Vapor (Gas) Irritant Characteristics: Irritating to eyes, skin, pharynx, larynx, and respiratory tract; lacrimator. 3.11 Liquid or Solid Characteristics: Irritating to eyes and skin. 3.12 Odor Threshold: 1-6 mg/m ³ 3.13 IDLH Value: 850 ppm. 3.14 OSHA PEL-TWA: 0.5 ppm. 3.15 OSHA PEL-STEL: Not listed. 3.16 OSHA PEL-Ceiling: Not listed. 3.17 EPA AEGL: Not listed	4. WATER POLLUTION 6.1 Aquatic Toxicity: 1 mg/l/48 hr/eastern oyster larvae/LD ₅₀ /saltwater 56 ppm/24 hr/water flea/LC ₅₀ /freshwater 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: Bioaccumulation: 0 Damage to living resources: 2 Human Oral hazard: I Human Contact hazard: II Reduction of amenities: XX	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
68	180.500	260	0.074		C U R R E N T L Y N O T A V A I L A B L E	59	2.152

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	0.100	75 100 125 150 175 200 225 250 275 300	0.088 0.242 0.528 1.000 1.716 2.739 4.137 5.982 8.352 11.327	75 100 125 150 175 200 225 250 275 300	0.00398 0.01014 0.02095 0.03790 0.06255 0.09655 0.14160 0.19943 0.27186 0.36074	77	0.067