

BROMOACETONE

BRE

CAUTIONARY RESPONSE INFORMATION

Common Synonyms Acetyl bromide Acetylmethyl bromide Bromomethyl methyl ketone 1-Bromo-2-propanone Bromo-2-propanone Monobromoacetone	Liquid Colorless to violet Pungent odor Sinks in water.
<p style="color: red;">Avoid contact with liquid and vapor. Keep people away. Wear self-contained breathing apparatus and full protective clothing. Shut off ignition sources. Call fire department. evacuate Notify local health and pollution control agencies. Protect water intakes.</p>	
Fire	<p>FLAMMABLE Emits toxic fumes in fire. Flashback may occur along vapor trail. Containers may explode in fire. Wear self-contained breathing apparatus and full protective clothing. Extinguish with CO₂, dry chemical, or foam.</p>
Exposure	<p>CALL FOR MEDICAL AID</p> <p>VAPOR Extremely irritating to the eyes, nose, throat, and upper respiratory system. May be harmful if inhaled or absorbed through the skin. Move victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.</p> <p>LIQUID Corrosive to eyes, skin, and upper respiratory tract. Harmful if swallowed or absorbed through the skin. IF IN EYES: hold eyelids open and flush with water for at least 15 minutes. Remove contaminated clothing and shoes, flush affected areas with plenty of water for at least 15 minutes. IF SWALLOWED: do nothing except keep victim warm. DO NOT INDUCE VOMITING.</p>
Water Pollution	<p>Toxic to aquatic life in low concentrations. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of local water intakes.</p>

1. CORRECTIVE RESPONSE ACTIONS

Stop discharge
Dilute and disperse
Collection Systems: Pump; Dredge
Do not burn

2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** Not listed.
2.2 **Formula:** C₂H₃BrO
2.3 **IMO/UN Designation:** 6.1/1569
2.4 **DOT ID No.:** 1569
2.5 **CAS Registry No.:** 598-31-2
2.6 **NAERG Guide No.:** 131
2.7 **Standard Industrial Trade Classification:** 51625

3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Self-contained breathing apparatus, chemical-resistant gloves, rubber boots, full protective clothing.
- 3.2 **Symptoms Following Exposure:** Very powerful lachrymator and upper respiratory tract irritant. Intensely irritating to the eyes, nose, throat, and lungs. Corrosive to the skin.
- 3.3 **Treatment of Exposure:** Call a physician. EYES: Hold eyelids open, flush with running water for at least 15 minutes. SKIN: Remove contaminated clothing and shoes, flush affected areas with plenty of water for at least 15 minutes. INHALATION: Move victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. INGESTION: Do nothing except keep victim warm.
- 3.4 **TLV-TWA:** Not listed.
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:** May cause pulmonary edema.
3.10 **Vapor (Gas) Irritant Characteristics:** Vapors cause severe irritation of eyes and throat and can cause eye and lung injury. They cannot be tolerated even at low concentrations.
3.11 **Liquid or Solid Characteristics:** Severe skin irritant. Causes second and third degree burns on short contact and is very injurious to the eyes.
3.12 **Odor Threshold:** Currently not available
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

4. FIRE HAZARDS

- 4.1 **Flash Point:** 124°F
4.2 **Flammable Limits in Air:** Currently not available
4.3 **Fire Extinguishing Agents:** CO₂, dry chemical, foam
4.4 **Fire Extinguishing Agents Not to Be Used:** Water may be ineffective against fire.
4.5 **Special Hazards of Combustion Products:** Toxic fumes of Bromine
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:** 16.7 (calc.)
4.12 **Flame Temperature:** Currently not available
4.13 **Combustion Molar Ratio (Reactant to Product):** 6.0 (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:** No reaction
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:** TL-96: 10-100 ppm
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: (4)
Human Oral hazard: (3)
Human Contact hazard: II
Reduction of amenities: XXX

7. SHIPPING INFORMATION

- 7.1 **Grades of Purity:** Currently not available
7.2 **Storage Temperature:** Currently not available
7.3 **Inert Atmosphere:** None
7.4 **Venting:** None
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:** P017
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:** 136.98
9.3 **Boiling Point at 1 atm:** 277°F = 136°C = 409°K
9.4 **Freezing Point:** -33.7°F = -36.5°C = 236.7°K
9.5 **Critical Temperature:** Currently not available
9.6 **Critical Pressure:** Currently not available
9.7 **Specific Gravity:** 1.634 at 23°C
9.8 **Liquid Surface Tension:** Currently not available
9.9 **Liquid Water Interfacial Tension:** Currently not available
9.10 **Vapor (Gas) Specific Gravity:** 4.72
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:** 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
59	102.010		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
	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	0 25 50 75 100 125 150 175 200 225 250 275 300 325 350 375 400 425 450 475 500 525 550 575 600	0.148 0.152 0.155 0.159 0.163 0.167 0.171 0.175 0.179 0.183 0.187 0.191 0.195 0.199 0.202 0.206 0.210 0.214 0.218 0.222 0.226 0.230 0.234 0.238 0.242