

BROMOACETYL BROMIDE

BAB

CAUTIONARY RESPONSE INFORMATION

Common Synonyms Bromoethanoyl bromide	Liquid Reacts violently with water. Irritating vapor is produced.	Colorless to light yellow Sharp, extremely irritating
<p>Avoid contact with liquid and vapor. Keep people away. Wear goggles and self-contained breathing apparatus. Evacuate. Notify local health and pollution control agencies. Protect water intakes.</p>		
Fire	Not flammable. POISONOUS GASES MAY BE PRODUCED WHEN HEATED. DO NOT USE WATER ON ADJACENT FIRES. Cool exposed containers with water.	
Exposure	CALL FOR MEDICAL AID. VAPOR Irritating to eyes, nose and throat. Move victim to fresh air. If breathing is difficult, give oxygen. LIQUID Will burn 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. DO NOT INDUCE VOMITING.	
Water Pollution	Effect of low concentrations on aquatic life is unknown. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.	

1. CORRECTIVE RESPONSE ACTIONS

Dilute and disperse
Stop discharge
Chemical and Physical Treatment:
Neutralize
Do not add water to undissolved material

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: Not listed.
2.2 Formula: BrCH₂CO₂Br
2.3 IMO/UN Designation: 8/2513
2.4 DOT ID No.: 2513
2.5 CAS Registry No.: 598-21-0
2.6 NAERG Guide No.: 156
2.7 Standard Industrial Trade Classification: 51372

3. HEALTH HAZARDS

- 3.1 Personal Protective Equipment: Acid-type canister mask; self-contained breathing apparatus (full face); rubber gloves and full protective clothing.
3.2 Symptoms Following Exposure: Inhalation causes severe irritation of upper respiratory system. External contact causes severe irritation of eyes and skin. Ingestion causes severe irritation of mouth and stomach.
3.3 Treatment of Exposure: INHALATION: Remove from exposure; support respiration, call physician. SKIN: Wash with large amounts of water; treat burns as required. INGESTION: Do NOT induce vomiting; give large amounts of water, call a physician.
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: Currently not available
3.10 Vapor (Gas) Irritant Characteristics: Vapors are moderately irritating, such that personnel will not usually tolerate moderate or high vapor 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: Not flammable
4.2 Flammable Limits in Air: Not flammable
4.3 Fire Extinguishing Agents: Not flammable
4.4 Fire Extinguishing Agents Not to Be Used: Do not use water on adjacent fires.
4.5 Special Hazards of Combustion
Products: Heat of fire can cause decomposition, with evolution of highly toxic and irritating hydrogen bromide and bromophosgene vapors.
4.6 Behavior in Fire: Highly irritating (tear gas) vapors released when heated. Hydrogen bromide gas is released if in contact with water.
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. CHEMICAL REACTIVITY

- 5.1 Reactivity with Water: Reacts vigorously to generate hydrogen bromide (hydrobromic acid).
5.2 Reactivity with Common Materials: Will react with surface moisture to generate hydrogen bromide, which is corrosive to metals.
5.3 Stability During Transport: Stable
5.4 Neutralizing Agents for Acids and Caustics: Flush with water, rinse with sodium bicarbonate or lime solution.
5.5 Polymerization: Not pertinent
5.6 Inhibitor 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: (2)
Human Oral hazard: (2)
Human Contact hazard: II
Reduction of amenities: XX

7. SHIPPING INFORMATION

- 7.1 Grades of Purity: Commercial
7.2 Storage Temperature: Ambient
7.3 Inert Atmosphere: No requirement
7.4 Venting: Pressure-vacuum
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: Corrosive material
8.2 49 CFR Class: 8
8.3 49 CFR Package Group: II
8.4 Marine Pollutant: No No
8.5 NFPA Hazard Classification:
Category Classification
Health Hazard (Blue)..... 3
Flammability (Red)..... 0
Instability (Yellow)..... 0
8.6 EPA Reportable Quantity: Not listed. Not listed.
8.7 EPA Pollution Category: Not listed. Not listed.
8.8 RCRA Waste Number: Not listed Not listed
8.9 EPA FWP/CA List: Not listed Not listed

9. PHYSICAL & CHEMICAL PROPERTIES

- 9.1 Physical State at 15° C and 1 atm: Liquid
9.2 Molecular Weight: 201.85
9.3 Boiling Point at 1 atm: 298°F = 148°C = 421°K
9.4 Freezing Point: Currently not available
9.5 Critical Temperature: Not pertinent
9.6 Critical Pressure: Currently not available
9.7 Specific Gravity: 2.317 at 20°C (liquid)
9.8 Liquid Surface Tension: Currently not available
9.9 Liquid Water Interfacial Tension: Not pertinent
9.10 Vapor (Gas) Specific Gravity: Currently not available
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: Not Listed
9.14 Heat of Decomposition: Not pertinent
9.15 Heat of Solution: Currently not available
9.16 Heat of Polymerization: Not pertinent
9.17 Heat of Fusion: Currently not available
9.18 Limiting Value: Currently not available
9.19 Reid Vapor Pressure: Currently not available

NOTES

BROMOACETYL BROMIDE

BAB

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
71	144.650		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	0.092 0.094 0.096 0.098 0.100 0.102 0.103 0.105 0.107 0.109 0.111 0.113 0.115 0.117 0.119 0.120 0.122 0.124 0.126 0.128 0.130 0.132 0.134 0.136 0.137