DIBROMOMETHANE

DBH

CAUTIONARY RESPONSE INFORMATION

Common Synonyms Methylene bromide Methylene dibromide	Watery liquid	Colorless	Sweet, pleasant odor Colorless Sweet, pleasant odor
	Sinks in water. Irritating vapor is produced.		

Avoid contact with liquid and vapor.
Restrict access.
Notify local health and pollution control agencies.
Protect water intakes.

Fire

Not flammable.
POISONOUS GASES ARE PRODUCED WHEN HEATED.
Wear goggles and self-contained breathing apparatus.
Cool exposed containers with water.

Exposure

CALL FOR MEDICAL AID.

VAPOR
Irritating to eyes, nose and throat.
If inhaled, will cause nausea and dizziness.
Move to fresh air.
If breathing has stopped, give artificial respiration.
If breathing is difficult, give oxygen.

LIQUID
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.

Water Pollution

Effect of low concentrations on aquatic life is unknown.
May be dangerous if it enters water intakes.
Notify local health and pollution control officials.
Notify operators of nearby water intakes.

1. CORRECTIVE RESPONSE ACTIONS

Stop discharge
Contain
Collection Systems: Pump; Dredge
Do not burn

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: Not listed.
2.2 Formula: CH_2Br_2
2.3 IMO/UN Designation: 6.1/2664
2.4 DOT ID No.: 2664
2.5 CAS Registry No.: 74-95-3
2.6 NAERG Guide No.: 160
2.7 Standard Industrial Trade Classification: 51138

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Organic vapor canister mask, safely glasses, protective clothing.
3.2 Symptoms Following Exposure: INHALATION: Anesthetic effects, nausea and drunkenness. CONTACT WITH SKIN AND EYES: Skin irritation of eyes and nose.
3.3 Treatment of Exposure: INHALATION: Remove from exposure. Give oxygen if needed. INGESTION: No specific antidote. CONTACT WITH SKIN AND EYES: Remove contaminated clothing; wash skin or eyes if affected.
3.4 TLV-TWA: Not listed.
3.5 TLV-STEL: Not listed.
3.6 TLV-Ceiling: Not listed.
3.7 Toxicity by Ingestion: Grade 3; LD_{50} = 108 mg/kg (rat)
3.8 Toxicity by Inhalation: Currently not available.
3.9 Chronic Toxicity: None
3.10 Vapor (Gas) Irritant Characteristics: Vapors cause moderate irritation such that personnel will find high concentrations unpleasant. The effect is temporary.
3.11 Liquid or Solid Characteristics: Minimum hazard. If spilled on clothing and allowed to remain, may cause smarting and reddening of the skin.
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 under conditions likely to be encountered.
4.2 Flammable Limits in Air: Not pertinent
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: Dissociation products generated in a fire may be irritating or toxic.
4.6 Behavior in Fire: Not pertinent
4.7 Auto Ignition Temperature: Currently not available
4.8 Electrical Hazards: Not pertinent
4.9 Burning Rate: Not pertinent
4.10 Adiabatic Flame Temperature: Currently not available
4.11 Stoichometric 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: 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: Not pertinent
6.2 Waterfowl Toxicity: Not pertinent
6.3 Biological Oxygen Demand (BOD): Not pertinent
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: I
Reduction of amenities: X

7. SHIPPING INFORMATION

7.1 Grades of Purity: Technical grade
7.2 Storage Temperature: Currently not available
7.3 Inert Atmosphere: Inerted
7.4 Venting: Currently not available
7.5 IMO Pollution Category: C
7.6 Ship Type: 2
7.7 Barge Hull Type: Currently not available

8. HAZARD CLASSIFICATIONS

8.1 49 CFR Category: Keep Away From Food
8.2 49 CFR Class: 6.1
8.3 49 CFR Package Group: III
8.4 Marine Pollutant: Yes
8.5 NFPA Hazard Classification:

Category	Classification
Health Hazard (Blue).....	2
Flammability (Red).....	1
Instability (Yellow).....	0

8.6 EPA Reportable Quantity: 1 pound
8.7 EPA Pollution Category: X
8.8 RCRA Waste Number: U067
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: 173.83
9.3 Boiling Point at 1 atm: 206.6°F = 97.0°C = 370.2°K
9.4 Freezing Point: -62.5 = -52.5°C = 220.7°K
9.5 Critical Temperature: Currently not available
9.6 Critical Pressure: Currently not available
9.7 Specific Gravity: 2.4970 at 20°C (liquid)
9.8 Liquid Surface Tension: Not pertinent
9.9 Liquid Water Interfacial Tension: Not pertinent
9.10 Vapor (Gas) Specific Gravity: 6.05 (est)
9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent
9.12 Latent Heat of Vaporization: 166 Btu/lb = 92.3 cal/g = 3.86 x 10^5 J/kg
9.13 Heat of Combustion: Currently not available
9.14 Heat of Decomposition: Not pertinent
9.15 Heat of Solution: Not pertinent
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: 1.7 psia

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	155.900		CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE	60	1.494
						70	1.416
						80	1.342
						90	1.272
						100	1.205
						110	1.142
						120	1.082
						130	1.026
						140	0.972
						150	0.921
						160	0.873
						170	0.827
						180	0.784
						190	0.743
						200	0.704
						210	0.667

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
35	1.169	-20	0.043		CURRENTLY NOT AVAILABLE	0	0.073
40	1.164	0	0.074			25	0.075
45	1.160	20	0.128			50	0.076
50	1.157	40	0.219			75	0.077
55	1.155	60	0.375			100	0.079
60	1.153	80	0.642			125	0.080
65	1.151	100	1.100			150	0.081
		120	1.885			175	0.082
		140	3.229			200	0.084
		160	5.533			225	0.085
		180	9.480			250	0.086
						275	0.088
						300	0.089
						325	0.090
						350	0.091
						375	0.093
						400	0.094
						425	0.095
						450	0.097
						475	0.098
						500	0.099
						525	0.100
						550	0.102
						575	0.103
						600	0.104