### 3-Bromopropylene

<table>
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<tr>
<th>Common Synonyms</th>
<th>Liquid</th>
<th>Colorless to light yellow</th>
<th>Irritating odor</th>
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#### 3.16 OSHA PEL-Ceiling:

#### 3.14 OSHA PEL-TWA:

#### 3.11 Liquid or Solid Characteristics:

#### 3.10 Vapor (Gas) Irritant Characteristics:

#### 3.9 Chronic Toxicity:

#### 3.8 Toxicity by Inhalation:

#### 3.7 Toxicity by Ingestion:

#### 3.5 TLV-STEL:

#### 3.4 TLV-TWA:

#### 3.15 OSHA PEL-STEL:

#### 3.3 Treatment of Exposure:

#### 3.2 Symptoms Following Exposure:

#### 3.17 EPA AEGL:

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### Exposure

#### Call for medical aid.

**VAPOR**
- Irritating to eyes, nose and throat.
- If inhaled will cause headache, dizziness, coughing or difficult breathing.
- Move victim to fresh air.
- If breathing is difficult, give oxygen.

**LIQUID**
- Irritating to skin and eyes.
- Remove contaminated clothing and shoes.
- Wash 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.

**INHALATION**
- Remove from exposure.
- If not breathing, give artificial respiration.
- If breathing is difficult, give oxygen; call physician.
- EYES: Wash with water for at least 15 min. and call physician.
- SKIN: Wash with water; get medical attention for skin irritation.

**INGESTION**
- Do NOT induce vomiting; get medical attention.

**CALCULATION**
- For a typical adult, a 60 kg body weight is assumed.
- If it is known, use the actual size of the exposed person.

**LIQUID**
- For a typical adult, a 60 kg body weight is assumed.
- Moderate oral exposure: 5 ml
- Severe oral exposure: 10 ml

**VAPOR**
- For a typical adult, a 60 kg body weight is assumed.
- 15 min.

**SOIL**
- Not pertinent.

---

### 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.**

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### 1. CORRECTIVE RESPONSE ACTIONS

**Stop discharge.**

**Collection Systems:** Pump, Dredge.

**Do not burn.**

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### 2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: Not listed.

2.2 Formula: CH₂BrCH₂.

2.3 IMO/UN Designation: 3.2/1099.

2.4 DOT ID No.: 1099.

2.5 CAS Registry No.: 106-95-6.

2.6 NAERG Guide No.: 131.

2.7 Standard Industrial Trade Classification: 51139.

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### 3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Goggles and face shield; protective clothing; self-contained breathing apparatus for high vapor concentrations.

3.2 Symptoms Following Exposure: Inhalation of vapor irritates mucous membranes and causes dizziness, headache, and lung irritation. Contact with liquid irritates eyes and skin. Ingestion causes irritation of mouth and stomach.

3.3 Treatment of Exposure: **PANHALATION:** remove from exposure; if not breathing, give artificial respiration; if breathing is difficult, give oxygen; call physician.

3.4 TLV-IA: Not listed.

3.5 TLV-STEL: Not listed.

3.6 TLV-Ceiling: Not listed.

3.7 Toxicity by Ingestion: Grade 4.

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: Fairly severe skin irritant. May cause pain and second-degree burns after a few minutes’ contact.

3.12 Odor Threshold: Currently not available.

3.13 OSHA PEL-TWA: Not listed.


3.15 OSHA PEL-Ceiling: Not listed.

3.16 OSHA PEL: Not listed.

3.17 EPA AEGL: Not listed.

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### 4. FIRE HAZARDS

4.1 Flash Point: 28°F C.C.

4.2 Flammable Limits in Air: 4.4±7.3%.

4.3 Fire Extinguishing Agents: Dry chemical, alcohol foam, or carbon dioxide.

4.4 Fire Extinguishing Agents Not to Be Used: Water may be ineffective.

4.5 Special Hazards of Combustion: Products: Toxic hydrogen bromide and bromine gases formed in fire.

4.6 Behavior in Fire: Vapor is heavier than air and may travel a considerable distance to a source of ignition and flash back.

4.7 Auto Ignition Temperature: 563°F.

4.8 Electrical Hazards: I, D.

4.9 Burning Rate: 3.5 mm/min.

4.10 Adiabatic Flame Temperature: Currently not available.

4.11 Stoichiometric Air to Fuel Ratio: Currently not available.

4.12 Flame Temperature: Currently not available.

4.13 Combustion Molar Ratio (Reactant to Product): Currently not available.


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### 5. CHEMICAL REACTIVITY

5.1 Reactivity with Water: No reaction.

5.2 Reactivity with Common Materials: Avoid strong oxidizing materials, strong bases, and mineral acid chlorides.

5.3 Stability During Transport: Stable.

5.4 Neutralizing Agents for Acids and Chlorides: Not pertinent.

5.5 Polymerization: Will not polymerize.

5.6 Inhibitor of Polymerization: Not pertinent.

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### 6. WATER POLLUTION

6.1 Aquatic Toxicity: Currently not available.

6.2 Water/wet 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.

6.6 Damage to living resources: 4.


6.8 Human Contact hazard: II Reduction of amenities: XXX.

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### 7. SHIPPING INFORMATION

7.1 Grades of Purity: Commercial.

7.2 Storage Temperature: Ambient.

7.3 Inert Atmosphere: Not pertinent.

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.

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### 8. HAZARD CLASSIFICATIONS

8.1 49 CFR Category: Flammable liquid.

8.2 49 CFR Class: 3.


8.4 Marine Pollutant: Yes.

8.5 NFA Hazard Classification: Not pertinent.

8.6 EPA Reportable Quantity: Not listed.

8.7 EPA Pollution Category: Not listed.

8.8 RORA Waste Number: Not listed.

8.9 EPA PFC/CA List: Not listed.

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### 9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Physical State at 15°C and 1 atm: Liquid.

9.2 Molecular Weight: 121.

9.3 Boiling Point at 1 atm: 158°F = 70°C = 343 K.

9.4 Freezing Point: –182°F = –119°C = 154 K.

9.5 Critical Temperature: Not pertinent.

9.6 Critical Pressure: Not pertinent.

9.7 Specific Gravity: 1.4161 at 20°C.

9.8 Liquid Surface Tension: 26.9 dynes/cm = 0.0269 N/m at 20°C.

9.9 Liquid Water Interfacial Tension: (est.) 40 dynes/cm = 0.040 N/m at 20°C.

9.10 Vapor (Gas): Specific Gravity 4.2.

9.11 Ratio of Specific Heats of Vapor (Gas): 1.215.

9.12 Latent Heat of Vaporization: (est.) 600 Btu/lb = 59 cal/g = 2.5 X 10⁶ J/kg.

9.13 Heat of Combustion: (est.) 6,700 Btu/lb = 5,700 cal/g = 150 X 10⁶ J/kg.


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 Void Vapor Pressure: Currently not available.

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### NOTES

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**JUNE 1999**
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