

## Safety Data Sheet (SDS)

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Bromine

Signal Word  
**DANGER**

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261

Chemtrec Emergency Phone Number: (800) 424-9503

Pictograms

### SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Acute toxicity, inhalation (Category 1). Fatal if inhaled (H330).



Hazard class: Skin corrosion or irritation (Category 1). Causes severe skin burns and eye damage (H314).



### SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Bromine	7726-95-6	Br <sub>2</sub>	159.83	

### SECTION 4 — FIRST AID MEASURES

Immediately call a POISON CENTER or physician (P311).

**If inhaled:** Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340).

**If in eyes:** Rinse cautiously with water for several minutes. Remove contacts if present and easy to do so. Continue rinsing (P305+P351+P338). **If on skin or hair:** Immediately remove all contaminated clothing. Rinse skin with water (P303+P361+P353). Wash contaminated clothing before reuse (P363).

**If swallowed:** Rinse mouth. Do NOT induce vomiting (P301+P330+P331).

### SECTION 5 — FIRE FIGHTING MEASURES

Noncombustible liquid. Will react with water or steam to produce toxic and corrosive fumes.

NFPA Code

Strong oxidizer; heat of reaction may ignite combustibles on contact.

H-3

When heated to decomposition, may emit toxic fumes.

F-0

In case of fire: Use a tri-class dry chemical fire extinguisher.

R-0

OX

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**SECTION 6 — ACCIDENTAL RELEASE MEASURES**

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Remove all ignition sources and ventilate area. Contain the spill with sand or other inert absorbent material and cover spill with a reducing material such as sodium thiosulfate. Deposit in a sealed bag or container. See Sections 8 and 13 for further information.

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**SECTION 7 — HANDLING AND STORAGE**

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Flinn Suggested Chemical Storage Pattern: Inorganic #2. Store with acetates, halides, sulfates, sulfites, thiosulfates and phosphates. Store in a cool, dry place. Store in a Flinn Chem-Saf™ bag inside a Flinn Saf-Stor™ can. Keep container tightly closed (P233). Use only in a hood or well-ventilated area (P271). Do not breathe vapors (P260).

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**SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION**

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Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264). Use only in a hood or well-ventilated area (P271). Wear respiratory protection (P284).

Exposure guidelines: PEL 0.1 ppm (OSHA) TLV 0.1 ppm Ceiling 0.2 ppm (ACGIH)

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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Dark, reddish-brown, fuming liquid. Pungent suffocating odor.	Boiling point: 58.8 °C
Soluble: Most common organic solvents. Slightly in water.	Relative density: 3.1
	Vapor density: 5.5 Vapor pressure: 172 mmHg
	Melting point: -7.2°C
	Partition coefficient: No data available

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**SECTION 10 — STABILITY AND REACTIVITY**

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Very strong oxidizing agent; heat of reaction may ignite combustible materials on contact. Avoid contact with all other laboratory chemicals. Will react with water or steam to produce toxic and corrosive fumes.

Shelf life: As packaged, excellent. This is meant to be a one time use product.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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Acute effects: Highly toxic, harmful vapor, lachrymator, and corrosive.	ORL-RAT LD <sub>50</sub> : 2600 mg/kg
Chronic effects: N.A.	IHL-RAT LC <sub>50</sub> : 2700 mg/m <sup>3</sup>

Target organs: Respiratory system, eyes and central nervous system.	SKN-RBT LD <sub>50</sub> : N.A.
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**SECTION 12 — ECOLOGICAL INFORMATION**

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Toxic to fish and other aquatic organisms. LC<sub>50</sub> (rainbow trout) 0.31 mg/L (24 hr). LC<sub>50</sub> (water flea) 1.07 mg/L (48 hr).

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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Please review all federal, state and local regulations that may apply before proceeding.

Flinn Suggested Disposal Method #12a is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping name: Bromine. Hazard class: 8, Corrosive, Poison. UN number: UN1744.

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**SECTION 15 — REGULATORY INFORMATION**

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TSCA-listed, EINECS-listed (231-778-1), RCRA code D002, D003.

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**SECTION 16 — OTHER INFORMATION**

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N.A. = Not available, not all health aspects of this substance have been fully investigated.

N/A = Not applicable

**Consult your copy of the Flinn Science Catalog/Reference Manual for additional information about laboratory chemicals.**

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