

FLINN SCIENTIFIC, INC.

Material Safety Data Sheet (MSDS)

MSDS #: 131.00

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SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Bromine

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

CHEMTREC Emergency Phone Number: (800) 424-9300

SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

Bromine

CAS#: 7726-95-6

SECTION 3 — HAZARDS IDENTIFICATION

Dark, reddish-brown, fuming liquid.

Highly toxic by ingestion and inhalation. Corrosive liquid and severe eye and skin irritant; may cause burns, including blindness. Strong oxidizer; heat of reaction may ignite combustibles on contact.

Reacts with water or steam to produce toxic and corrosive fumes. Extremely hazardous substance.

FLINN AT-A-GLANCE

Health-3

Flammability-0

Reactivity-3

Exposure-3

Storage-2

0 is low hazard, 3 is high hazard

SECTION 4 — FIRST AID MEASURES

Call a physician and seek medical attention for further treatment, observation, and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped, give artificial respiration immediately.

Eye or External: Immediately flush with fresh water for at least 15 minutes.

Internal: Do NOT induce vomiting. Rinse mouth. Give large quantities of water for dilution. Call a physician or poison control at once.

SECTION 5 — FIRE FIGHTING MEASURES

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

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

Fire Fighting Instructions: Use a triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

NFPA CODE

H-3

F-0

R-0

OX

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from the area. 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.

SECTION 7 — HANDLING AND STORAGE

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. Use and dispense in a hood.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire). Exposure guidelines: PEL 0.1 ppm, STEL 0.3 ppm (OSHA, NIOSH)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Dark, reddish-brown, fuming liquid. Pungent odor.

Solubility: Water and most common organic solvents.

Formula: Br₂

Formula weight: 159.83

Boiling point: 58.8 °C

Specific gravity: 3.1

Vapor density: 7.14

SECTION 10 — STABILITY AND REACTIVITY

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: Good, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Highly toxic, harmful vapor, lachrymator, and corrosive.

Chronic effects: N.A.

Target organs: Respiratory system, eyes & central nervous system.

ORL-RAT LD₅₀: 2600 mg/kg

IHL-RAT LC₅₀: 2700 mg/m³

SKN-RBT LD₅₀: N.A.

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

SECTION 12 — ECOLOGICAL INFORMATION

Toxic to fish and other aquatic organisms. LC₅₀ (rainbow trout) 0.31 mg/L (24 hr). LC₅₀ (water flea) 1.07 mg/L (48 hr).

SECTION 13 — DISPOSAL CONSIDERATIONS

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

Flinn Suggested Disposal Method #12a is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Bromine

Hazard class: 8, Corrosive, Poison

UN number: UN1744

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

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

SECTION 16 — OTHER INFORMATION

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