



## ELECTRO-TECHNIC PRODUCTS

4642 N. RAVENSWOOD, CHICAGO, ILLINOIS 60640-4510  
TELEPHONE: 1-773-561-2349

### SAFETY DATA SHEET

---

#### Section 1: Identification

---

**Product Identifier:** Spectrum Tube, Bromine Vapor (ETP Product No. 20102)

**Common Name:** Bromine

**Recommended Use:** Educational, study of spectral lines

**Restrictions on Use:** Use under supervision of science teacher

**Manufacturer Information**

Electro-Technic Products  
4642 N. Ravenswood Ave  
Chicago, IL 60640-4510, USA

**General and Emergency Phone No.**

773-561-2349

**Revision Date:**

06/01/2015

---

#### Section 2: Hazards Identification

---

Much of the information provided below will apply to larger quantities of BROMINE. Each tube contains a trace amount of bromine vapor in a gaseous state within a sealed glass tube, about 10.5 in. (27 cm) long by ½ in. (13 mm) in diameter, at a pressure of about 0.15 Torr. At these concentrations, and pressures, the bromine vapor is not visibly discernible inside the tube.

**DANGER!** Strong oxidizer. Causes burns to skin, eyes, digestive and respiratory tract. Severe over-exposure may be fatal.

**General Statement:** The bromine in each tube is poses no hazard so long as the tube is sealed.

---

#### Section 3: Composition / Information on Ingredients

---

**CAS:** 7726-95-6 **Component:** Bromine **Percent:** 100%, under low pressure.

---

#### Section 4: First-Aid Measures

---

**Inhalation:** Remove to fresh air. Seek immediate medical advice.

**Skin:** Wash with /soap and water for 15 minutes. Seek immediate medical advice.

**Eye Contact:** Flush w/water for several minutes. Then consult with medical advice.

**Ingestion.** Seek medical treatment.

If tube broken, treat for cuts and possible burns resulting from tube if hot.

---

#### Section 5: Fire-Fighting Measures

---

**Recommendations for fighting fire caused by the chemical:** Not considered to be a fire or explosion hazard. Use any means to extinguish surrounding fire.

---

#### Section 6: Accidental Release Measures

---

**Recommendations for Personal Precautions and Emergency Procedures:**

Ensure adequate ventilation. Wear protective equipment. Keep unprotected persons away..

**Precautions for Safe Handling:** Never handle tube when hot, or energized. Keep away from heat, use indoors, with approved source of power.

**Conditions for Safe Storage:** Store at room temperature. Protect glass from breakage.

**Incompatibilities While Storing:** Keep away from any chemical that might attack glass.

---

---

**Section 8: Exposure Controls / Personal Protection**

---

---

**Component Exposure Limits:** Use in an area providing normal ventilation. Never use in a confined space **Personal Protection:** Wear safety glasses when using this product. Observe normal laboratory procedures.

---

---

**Section 9: Physical and Chemical Properties**

---

---

**Physical State:** Brown liquid at atm pressure

**Vapor Pressure:** 175 mmHg @ 20 °C

**Melting Point:** 7 °C

**Molecular Weight:** 159.81

**Boiling Point:** 58.8 °C

**Vapor Density (air=1)** 5.5

**Relative Density:** 31 g/mL @ 25 °C

**Molecular Formula:** Br<sub>2</sub>

---

---

**Section 10: Stability and Reactivity**

---

---

**Reactivity:** None expected. **Chemical Stability:** Stable under recommended storage conditions. **Conditions to Avoid:** Avoid open flames, mechanical stress on glass

---

---

**Section 11/12: Toxicological/Ecological Information**

---

---

Considerable information exists concerning for larger amounts of bromine than are contained in this product. Consult this data for further information.

---

---

**Section 13: Disposal Considerations**

---

---

**Disposal Methods:** Dispose of in accordance with all applicable local regulations..

---

---

**Sections 14: Transport Information**

---

---

If transporting this product, consult with your local carrier for further information. Over pack to prevent the tube from breakage during shipment.

---

---

**Sections 15: Regulatory Information**

---

---

Considerable information exists concerning this subject. It may vary from one location to another. Consult this data for further information.

---

---

**Section 16: Other Information**

---

---

The above information is based upon the best information available to us. Electro-Technic Products shall not be held liable for any claims, losses or damages resulting from reliance on this information. Users should do their own research to determine the suitability of the information for their own use of this product..