

## Safety Data Sheet

### SECTION 1: Identification

#### 1.1. Product Identifier

**Trade Name or Designation:** Bromate-Bromide Solution, 0.100 Normal (N/10)

**Product Number:** 1170

**Other Identifying Product Numbers:** 1170-1, 1170-16, 1170-2.5, 1170-32, 1170-5

#### 1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

#### 1.3. Details of the Supplier of the Safety Data Sheet

**Company:** Ricca Chemical Company

**Address:** 448 West Fork Drive  
Arlington, TX 76012 USA

**Telephone:** 888-467-4222

#### 1.4. Emergency Telephone Number (24 hr)

CHEMTREC (USA) 800-424-9300  
CHEMTREC (International) 1+ 703-527-3887

### SECTION 2: Hazard(s) Identification

#### 2.1. Classification of the Substance or Mixture (in accordance with OSHA HCS 29 CFR 1910.1200)

*For the full text of the Hazard and Precautionary Statements listed below, see Section 16.*

| Hazard Class   | Category   | Hazard Statement | Precautionary Statements                                 |
|--|------------|------------------|--|
| Skin Sensitizer  | Category 1 | H317             | P261, P272, P280, P302+P352, P332+P313, P321, P363, P501 |
| Carcinogenicity  | Category 1 | H350             | P201, P202, P280, P308+P313, P405, P501                  |
| Reproductive Toxicity  | Category 2 | H361             | P201, P202, P280, P308+P313, P405, P501                  |
| Specific Target Organs/Systemic Toxicity Following Repeated Exposure | Category 2 | H373             | P260, P314, P501   |

# Safety Data Sheet

## 2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

| Hazard Number | Hazard Statement   |
|---------------|--|
| H317          | May cause an allergic skin reaction.                               |
| H350          | May cause cancer.  |
| H361          | Suspected of damaging fertility or the unborn child.               |
| H373          | May cause damage to organs through prolonged or repeated exposure. |

Precautionary Statements:

| Precautionary Number | Precautionary Statement   |
|----------------------|---|
| P201                 | Obtain special instructions before use.   |
| P202                 | Do not handle until all safety precautions have been read and understood.                   |
| P260                 | Do not breathe dust, fumes or mist.   |
| P261                 | Avoid breathing dust, fumes or mist.  |
| P272                 | Contaminated work clothing must not be allowed out of the workplace.                        |
| P280                 | Wear protective gloves and eye protection.  |
| P302+P352            | IF ON SKIN: Wash with plenty of soap and water.   |
| P308+P313            | IF exposed or concerned: Get medical attention.   |
| P314                 | Get medical attention if you feel unwell.   |
| P321                 | Specific treatment (Wash areas of contact with water).                                      |
| P332+P313            | If skin irritation occurs: Get medical attention.   |
| P363                 | Wash contaminated clothing before reuse.  |
| P405                 | Store locked up.  |
| P501                 | Dispose of contents in accordance with local, state, federal and international regulations. |

## 2.3. WHMIS Classification

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

## 2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.



## Safety Data Sheet

### SECTION 3: Composition / Information on Ingredients

#### 3.1. Components of Substance or Mixture

| Chemical Name     | Formula           | Molecular Weight | CAS Number | Weight% |
|-------------------|-------------------|------------------|------------|---------|
| Water             | H <sub>2</sub> O  | 18.01 g/mol      | 7732-18-5  | 98.72%  |
| Potassium Bromide | KBr               | 119.00 g/mol     | 7758-02-3  | 1.00%   |
| Potassium Bromate | KBrO <sub>3</sub> | 167.00 g/mol     | 7758-01-2  | 0.28%   |

### SECTION 4: First-Aid Measures

#### 4.1. General First Aid Information

**Eye Contact:** May cause slight irritation.

**Inhalation:** Not expected to require first aid. If necessary, remove to fresh air.

**Skin Contact:** IF ON SKIN: Wash with plenty of soap and water. May cause slight irritation.

**Ingestion:** Dilute immediately with water or milk. Induce vomiting. Call a physician.

#### 4.2. Most Important Symptoms and Effects, Acute and Delayed

Non-flammable, non-corrosive. Does not present any significant health hazards. Contains Potassium Bromate, which is classified as a possible carcinogen by IARC (limited evidence in humans). Wash areas of contact with water. If ingested, dilute with water or milk. Induce vomiting. Call a physician EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause slight irritation.

#### 4.3. Medical Attention or Special Treatment Needed

Specific treatment (Wash areas of contact with water).

### SECTION 5: Fire-Fighting Measures

#### 5.1. Extinguishing Media

Use any means suitable for extinguishing surrounding fire.

#### 5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard.

#### 5.3. Special Protective Equipment for Firefighters

Use protective clothing and breathing equipment appropriate for the surrounding fire.

### SECTION 6: Accidental Release Measures

#### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.



## Safety Data Sheet

### 6.2. Cleanup and Containment Methods and Materials

Absorb with suitable material and treat as normal refuse. Small amounts of the liquid may be flushed to the drain with excess water. Always dispose of in accordance with local regulations.

## SECTION 7: Handling and Storage

### 7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

## SECTION 8: Exposure Controls / Personal Protection

### 8.1. Control Parameters

| Chemical Name          | Limit Type | Country | Exposure Limit | Information Source |
|------------------------|------------|---------|----------------|--------------------|
| Data not available. () |            |         |                |                    |

### 8.2. Exposure Controls

**Engineering Controls:** No specific controls are needed. Normal room ventilation is adequate.

**Respiratory Protection:** Normal room ventilation is adequate.

**Skin Protection:** Wear protective gloves and eye protection. Chemical resistant gloves.

**Eye Protection:** Wear protective gloves and eye protection. Safety glasses or goggles.

### 8.3. Personal Protective Equipment

Wear protective gloves and eye protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.



## Safety Data Sheet

### SECTION 9: Physical and Chemical Properties

#### 9.1. Basic Physical and Chemical Properties

**Appearance:** Colorless liquid

**Physical State:** Liquid

**Odor:** Data not available.

**Odor Threshold:** Data not available.

**pH:** Data not available.

**Melting/Freezing Point:** 0.0°C

**Initial Boiling Point /Range:** 100°C - 100°C

**Flash Point:** Data not available.

**Evaporation Rate:** Data not available.

**Flammability:** Data not available.

**Flammability/Explosive Limits:** Data not available.

**Vapor Pressure:** Data not available.

**Vapor Density:** Data not available.

**Relative Density:** 1.00

**Solubility:** Miscible

**Partition Coefficient (n-Octanol/Water):** Data not available.

**Auto-Ignition Temperature:** Data not available.

**Decomposition Temperature:** Data not available.

**Viscosity:** Data not available.

**Explosive Properties:** Data not available.

**Oxidizing Properties:** Data not available.

### SECTION 10: Stability and Reactivity

#### 10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

#### 10.2. Possibility of Hazardous Reactions

Data not available.

#### 10.3. Conditions to Avoid and Incompatible Materials

Acids, Selenium.

#### 10.4. Hazardous Decomposition Products

Will not occur.



## Safety Data Sheet

### SECTION 11: Toxicological Information

#### 11.1. Information on Toxicological Effects

**Acute Toxicity - Oral Exposure:**

Not applicable.

**Acute Toxicity - Dermal Exposure:**

Not applicable.

**Acute Toxicity - Inhalation Exposure:**

Not applicable.

**Acute Toxicity - Other Information:**

LD50, Oral, Rat: 157 mg/kg (Potassium Bromate), 3070 mg/kg (Potassium Bromide), gastrointestinal and sense organ effects noted. Potassium Bromate is investigated as a tumorigen.

**Skin Corrosion and Irritation:**

Not applicable.

**Serious Eye Damage and Irritation:**

Not applicable.

**Respiratory Sensitization:**

Not applicable.

**Skin Sensitization:**

May cause an allergic skin reaction. Avoid breathing dust, fumes or mist. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Specific treatment (Wash areas of contact with water). Wash contaminated clothing before reuse. Dispose of contents in accordance with local, state, federal and international regulations.

**Germ Cell Mutagenicity:**

Not applicable.

**Carcinogenicity:**

May cause cancer. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

**Reproductive Toxicity:**

Suspected of damaging fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

**Specific Target Organ Toxicity from Single Exposure:**

Not applicable.

## Safety Data Sheet

**Specific Target Organ Toxicity from Repeated Exposure:**

May cause damage to organs through prolonged or repeated exposure. Do not breathe dust, fumes or mist. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

**Aspiration Hazard:**

Not applicable.

**Additional Toxicology Information:**

Data not available.

### SECTION 12: Ecological Information

**12.1. Ecotoxicity**

Not applicable.

**12.2. Persistence and Degradability**

Data not available.

**12.3. Bioaccumulative Potential**

Data not available.

**12.4. Mobility in Soil**

Data not available.

**12.5. Other Adverse Ecological Effects**

Data not available.

### SECTION 13: Disposal Considerations

**13.1. Waste Treatment Methods**

Data not available.

### SECTION 14: Transportation Information

**14.1. Transportation by Land - Department of Transportation (DOT, United States of America)**

Not regulated according to DOT Regulations.



## Safety Data Sheet

### SECTION 15: Regulatory Information

#### 15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

#### 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Not listed.

#### 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Not listed.

#### 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Potassium Bromate (CAS # 7758-01-2): 0.1 % de minimis concentration

#### 15.5. Massachusetts Right-to-Know Substance List

Potassium Bromate (CAS # 7758-01-2): Carcinogen; Extraordinarily hazardous

#### 15.6. Pennsylvania Right-to-Know Hazardous Substances

Water (CAS # 7732-18-5): Present

Potassium Bromate (CAS # 7758-01-2): Present

#### 15.7. New Jersey Worker and Community Right-to-Know Components

Potassium Bromate (CAS # 7758-01-2): carcinogen

Potassium Bromate (CAS # 7758-01-2): sn 1559

Potassium Bromate (CAS # 7758-01-2): SN 1559 TPQ: 500 lb

#### 15.8. California Proposition 65

Potassium Bromate (CAS # 7758-01-2): 1 µg/day NSRL

Potassium Bromate (CAS # 7758-01-2): carcinogen, initial date 1/1/90

#### 15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Water (CAS # 7732-18-5): Present

Potassium Bromate (CAS # 7758-01-2): Present (CEPA, subsection 81(3) applies)

Potassium Bromide (CAS # 7758-02-3): Present

#### 15.10. United States of America Toxic Substances Control Act (TSCA) List

Water (CAS # 7732-18-5): Present

Potassium Bromate (CAS # 7758-01-2): Present

Potassium Bromide (CAS # 7758-02-3): Present

#### 15.11. European Inventory of Existing Commercial Chemical Substances (EINECS),

European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Not listed.



## Safety Data Sheet

### SECTION 16: Other Information

#### 16.1. Full Text of Hazard Statements and Precautionary Statements

May cause an allergic skin reaction. May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust, fumes or mist. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves and eye protection.

IF ON SKIN: Wash with plenty of soap and water. IF exposed or concerned: Get medical attention. Get medical attention if you feel unwell. Specific treatment (Wash areas of contact with water). If skin irritation occurs: Get medical attention. Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents in accordance with local, state, federal and international regulations.

#### 16.2. Miscellaneous Hazard Classes

**Canadian Carcinogenicity Hazard Class:** Not Applicable.

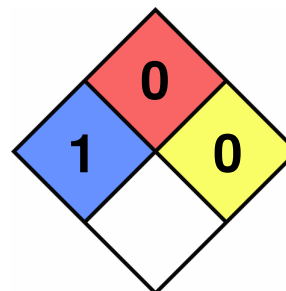
**Physical Hazards Not Otherwise Classified (PHNOC):** Not Applicable.

**Health Hazards Not Otherwise Classified (HHNOC):** Not Applicable.

Not Applicable.

#### 16.3. National Fire Protection Association (NFPA) Rating

**Health:** 1  
**Flammability:** 0  
**Reactivity:** 0  
**Special Hazard:**



## Safety Data Sheet

### 16.4. Document Revision

**Last Revision Date:** 5/1/2015

### DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.