Material Safety Data Sheet
Bromate-Bromide, 0.1N - 0.5N

Section 1 - Chemical Product and Company Identification

MSDS Name:
Bromate-Bromide, 0.1N - 0.5N
Catalog Numbers:
LC11950, LC11970
Synonyms:
None
Company Identification:
LabChem Inc
200 William Pitt Way
Pittsburgh, PA 15238
Company Phone Number:
(412) 826-5230
Emergency Phone Number:
(800) 424-9300
CHEMTREC Phone Number:
(800) 424-9300 or
011-703-527-3887

Section 2 – Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name:</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>balance</td>
</tr>
<tr>
<td>7758-02-3</td>
<td>Potassium bromide</td>
<td>1-5.5</td>
</tr>
<tr>
<td>7758-01-2</td>
<td>Potassium bromate</td>
<td>0.27-1.4</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

Emergency Overview

Appearance: Clear, colorless solution
Warning. Oxidizer. May cause eye and skin irritation. May be harmful if swallowed. May cause cancer based on animal studies. Possible risk of harm to the unborn child.
Target Organs: Kidneys, blood, central nervous system.

Potential Health Effects

Eye:
May cause eye irritation.

Skin:
May cause skin irritation. May be absorbed through the skin. Exposure to bromides may cause rashes, especially of the face, and boils.

Ingestion:
May cause gastrointestinal irritation with nausea, vomiting, and diarrhea. May cause liver and kidney damage. May cause central nervous system depression. May cause methemoglobinemia and cyanosis. Hearing loss and deafness have been reported.
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Inhalation:
May cause respiratory tract irritation.

Chronic:
May cause liver and kidney damage. May cause cancer according to animal studies. Chronic ingestion may cause bromism, which is characterized by disturbances of the central nervous system, skin, and digestive tract.

Section 4 - First Aid Measures

Eyes:
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

Skin:
Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid.

Ingestion:
Do not induce vomiting unless directed by qualified medical personnel. Get medical aid at once. Give oxygen if respiration is depressed.

Inhalation:
Move victim to fresh air. If breathing is difficult, give oxygen. Give artificial respiration if necessary. Get medical aid.

Notes to Physician:
Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Oxidizer. May contribute to fire by releasing oxygen.

Extinguishing Media:
For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:
No information found.

Flash Point:
No information found.

NFPA Rating:
CAS# 7732-18-5: Health- 0, Flammability- 0, Instability- 0
CAS# 7758-02-3: Health- 1, Flammability- 0, Instability- 0
CAS# 7758-01-2: Health- 2, Flammability- 0, Instability- 2, Special Hazard- OX

Explosion Limits:
Lower: n/a Upper: n/a

Section 6 - Accidental Release Measures

General Information:
Use proper personal protective equipment as indicated in Section 8.
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Spills/Leaks:
Absorb spills with non-combustible absorbent (vermiculite, sand, fuller's earth) and place in suitable containers labeled for later disposal.

Section 7 - Handling and Storage

Handling:
Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Do not ingest or inhale.
Storage:
Store capped at room temperature. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:
Facilities using or storing this material should be equipped with an eyewash and safety shower. Provide local exhaust or general dilution ventilation.

Exposure Limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>None of the components are on this list.</td>
<td>None of the components are on this list.</td>
<td>None of the components are on this list.</td>
</tr>
<tr>
<td>Potassium bromide</td>
<td>None of the components are on this list.</td>
<td>None of the components are on this list.</td>
<td>None of the components are on this list.</td>
</tr>
<tr>
<td>Potassium bromate</td>
<td>None of the components are on this list.</td>
<td>None of the components are on this list.</td>
<td>None of the components are on this list.</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs:
None.

Personal Protective Equipment

Eyes:
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Do not wear contact lenses when working with chemicals.

Skin:
Wear appropriate protective gloves to prevent skin exposure.

Clothing:
Wear appropriate protective clothing to prevent skin exposure.

Respirators:
Follow the OSHA respirator regulations found in 29 CFR 1910.134. Always use a NIOSH-approved respirator when necessary.

Section 9 - Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State:</th>
<th>Clear liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor:</td>
<td>Odorless</td>
</tr>
<tr>
<td>pH:</td>
<td>Neutral</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>No information found.</td>
</tr>
<tr>
<td>Vapor Density:</td>
<td>No information found.</td>
</tr>
</tbody>
</table>
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Evaporation Rate: No information found.
Viscosity: No information found.
Boiling Point: No information found.
Freezing/Melting Point: No information found.
Decomposition Temperature: No information found.
Solubility in water: Soluble
Specific Gravity/Density: No information found.
Molecular Formula: No information found.
Molecular Weight: No information found.

Section 10 - Stability and Reactivity

Chemical Stability:
Stable under normal temperatures and pressures.

Conditions to Avoid:
Incompatible materials, excess heat.

Incompatibilities with Other Materials:
Combustible materials, reducing agents, strong acids, flammable liquids.

Hazardous Decomposition Products:
Oxygen, oxides of potassium, bromine, hydrogen bromide.

Hazardous Polymerization:
Has not been reported.

Section 11 - Toxicological Information

RTECS:
CAS# 7732-18-5: ZC0110000.
CAS# 7758-02-3: TS7650000.
CAS# 7758-01-2: EF8725000.

LD50/LC50:
CAS# 7732-18-5:
Oral, rat: LD50 = >90 mL/kg.
CAS# 7758-02-3:
No information found.
CAS# 7758-01-2:
Oral, mouse: LD50 = 289 mg/kg
Oral, rat: LD50 = 321 mg/kg.

Carcinogenicity:
CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 7758-02-3: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 7758-01-2: California: carcinogen; initial date 1/1/90
OSHA: Possible Select carcinogen
IARC: Group 2B

Epidemiology:
No information found

Teratogenicity:
No information found
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**Reproductive:**
No information found

**Mutagenicity:**
See actual entry in RTECS for complete information.

**Neurotoxicity:**
No information found

### Section 12 - Ecological Information

No information found

### Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

### Section 14 - Transport Information

**US DOT**
- **Shipping Name:** Not regulated.
- **Hazard Class:**
- **UN Number:**
- **Packing Group:**

### Section 15 - Regulatory Information

**US Federal**
- **TSCA:**
  - CAS# 7732-18-5 is listed on the TSCA Inventory.
  - CAS# 7758-02-3 is listed on the TSCA Inventory.
  - CAS# 7758-01-2 is listed on the TSCA Inventory.
- **SARA Reportable Quantities (RQ):**
  - None of the components are on this list.
- **CERCLA/SARA Section 313:**
  - This material contains Potassium bromate (CAS# 7758-01-2, 0.27-1.4%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
- **OSHA - Highly Hazardous:**
  - None of the components are on this list.

**US State**
- **State Right to Know:**
  - Potassium bromate can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
- **California Regulations:**
  - WARNING: This product contains Potassium bromate, a chemical known to the state of California to cause cancer.
European/International Regulations

Canadian DSL/NDSL:
- CAS# 7732-18-5 is listed on Canada's DSL List.
- CAS# 7758-02-3 is listed on Canada's DSL List.
- CAS# 7758-01-2 is listed on Canada's DSL List

Canada Ingredient Disclosure List:
- CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
- CAS# 7758-02-3 is listed on Canada's Ingredient Disclosure List.
- CAS# 7758-01-2 is not listed on Canada's Ingredient Disclosure List

Section 16 - Other Information

MSDS Creation Date: February 8, 1998
Revision Date: November 8, 2011
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