Material Safety Data Sheet
Potassium bromate

ACC# 01249

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Potassium bromate  
**Product Grade:** SQ  
**Catalog Numbers:** 26555  
**Synonyms:** Potassium Bromate  
**Company Identification:**  
Fisher Scientific  
Part of Thermo Fisher Scientific  
Thermo Fisher Scientific India Pvt. Ltd  
403-404, B-wing, Delphi,  
Hiranandani Business Park,  
Powai (E), Mumbai 400076, INDIA.

**For information,** call: 022 – 6680 3001/2, **Call India Toll Free** – 1800 209 7001

**Emergency Number:** 022-66803004/14  
**For CHEMTREC assistance,** call: 800-424-9300 [International]  
**For International CHEMTREC assistance,** call: 703-527-3887 [International]

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7758-01-2</td>
<td>Potassium bromate</td>
<td>&gt;98.5</td>
<td>231-829-8</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: white crystals.

**Danger!** Explosive when mixed with combustible material. Strong oxidizer. Contact with other material may cause a fire. Harmful if swallowed. Causes eye, skin, and respiratory tract irritation. May cause nervous system effects. May cause cancer based on animal studies. May cause kidney damage.

**Target Organs:** Kidneys, central nervous system, liver.
Potential Health Effects

**Eye:** Causes moderate eye irritation. May cause transient corneal injury.  
**Skin:** Causes skin irritation. In the presence of moisture, this material may be absorbed through the skin.  
**Ingestion:** Harmful if swallowed. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause liver and kidney damage. May cause central nervous system depression. Hearing loss and deafness have been reported. May form methemoglobin which in sufficient concentration causes cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood).  
**Inhalation:** Causes respiratory tract irritation.  
**Chronic:** May cause liver and kidney damage. May cause cancer according to animal studies.

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**Section 4 - First Aid Measures**

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.  
**Skin:** Get medical aid immediately. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.  
**Ingestion:** Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.  
**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.  
**Notes to Physician:** Treat symptomatically and supportively.

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**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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Oxidizer. Greatly increases the burning rate of combustible materials. Some oxidizers may react explosively with hydrocarbons(fuel). Containers may explode if exposed to fire.  
**Extinguishing Media:** Use flooding quantities of water as spray. Cool containers with flooding quantities of water until well after fire is out. For small fires, do NOT use dry chemicals, carbon dioxide, halon or foams. USE WATER ONLY.  
**Flash Point:** Not available.  
**Autoignition Temperature:** Not available.  
**Explosion Limits, Lower:** Not available.
Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Wash area with soap and water. Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation. Do not use combustible materials such as paper towels to clean up spill.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Do not ingest or inhale. Keep from contact with clothing and other combustible materials. Inform laundry personnel of contaminant's hazards.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.
Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium bromate</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Potassium bromate: No OSHA Vacated PELs are listed for this chemical.
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 or European Standard EN166.

Skin: Wear appropriate 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 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

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Section 9 - Physical and Chemical Properties

**Physical State:** Crystals  
**Appearance:** white  
**Odor:** odorless  
**pH:** 7  
**Vapor Pressure:** Not available.  
**Vapor Density:** Not available.  
**Evaporation Rate:** Not available.  
**Viscosity:** Not available.  
**Boiling Point:** Not available.  
**Freezing/Melting Point:** 350 deg C  
**Decomposition Temperature:** 370 deg C  
**Solubility:** Soluble in 12.5 parts water  
**Specific Gravity/Density:** 3.3  
**Molecular Formula:** KBrO3  
**Molecular Weight:** 167.0005

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Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.  
**Conditions to Avoid:** Dust generation, excess heat.  
**Incompatibilities with Other Materials:** Strong reducing agents, flammable liquids, combustible materials, acids.  
**Hazardous Decomposition Products:** Hydrogen bromide, oxygen, oxides of potassium.  
**Hazardous Polymerization:** Will not occur.

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Section 11 - Toxicological Information
RTECS#:
CAS# 7758-01-2: EF8725000

LD50/LC50:
CAS# 7758-01-2:
- Oral, mouse: LD50 = 289 mg/kg;
- Oral, rat: LD50 = 157 mg/kg;

Carcinogenicity:
CAS# 7758-01-2:
- ACGIH: Not listed.
- California: carcinogen, initial date 1/1/90
- NTP: Not listed.
- IARC: Group 2B carcinogen

Epidemiology: No data available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Mutagenicity: Animal tests have shown positive results for the mutagenicity of potassium bromate. (RTECS)
Neurotoxicity: No information available.
Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information
**Shipment Name:** POTASSIUM BROMATE

**Hazard Class:** 5.1

**UN Number:** UN1484

**Packing Group:** II

### Section 15 - Regulatory Information

**US FEDERAL**

**TSCA**
- CAS# 7758-01-2 is listed on the TSCA inventory.

**Health & Safety Reporting List**
- None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**
- None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**
- None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**
- None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**
- None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**
- None of the chemicals in this product have a TPQ.

**SARA Codes**
- CAS # 7758-01-2: immediate, delayed, fire.

**Section 313**
- This material contains Potassium bromate (CAS# 7758-01-2, >98.5%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**Clean Air Act:**
- This material does not contain any hazardous air pollutants.
- This material does not contain any Class 1 Ozone depletors.
- This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:**
- None of the chemicals in this product are listed as Hazardous Substances under the CWA.
- None of the chemicals in this product are listed as Priority Pollutants under the CWA.
- None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**
- None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**
- CAS# 7758-01-2 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.
California Prop 65
The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:
WARNING: This product contains Potassium bromate, a chemical known to the state of California to cause cancer.
California No Significant Risk Level: CAS# 7758-01-2: 1 æg/day NSRL

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols:
  T O
Risk Phrases:
  R 25 Toxic if swallowed.
  R 45 May cause cancer.
  R 9 Explosive when mixed with combustible material.
Safety Phrases:
  S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
  S 53 Avoid exposure - obtain special instructions before use.

WGK (Water Danger/Protection)
  CAS# 7758-01-2: No information available.
Canada - DSL/NDSL
  CAS# 7758-01-2 is listed on Canada's DSL List.
Canada - WHMIS
  This product has a WHMIS classification of C, D1B, D2A, D2B.
  This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: October 2013
Revision Date: October 2018

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.