

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** POTASSIUM BROMATE

**Other means of identification**

**Product No.:** 2992

**Recommended use and restriction on use**

**Recommended use:** Not available.

**Restrictions on use:** Not known.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer**

**Company Name:** Avantor Performance Materials, Inc.  
**Address:** 3477 Corporate Parkway, Suite 200  
Center Valley, PA 18034

**Telephone:** Customer Service: 855-282-6867

**Fax:**  
**Contact Person:** Environmental Health & Safety  
**e-mail:** info@avantormaterials.com

**Emergency telephone number:**

24 Hour Emergency: 908-859-2151

Chemtrec: 800-424-9300

## 2. Hazard(s) identification

**Hazard classification**

**Physical hazards**

Oxidizing solids Category 1

**Health hazards**

Acute toxicity (Oral) Category 4

Carcinogenicity Category 1B

**Label elements**

**Hazard symbol:**



**Signal word:** Danger

**Hazard statement:** May cause fire or explosion; strong oxidizer.  
May cause cancer.  
Harmful if swallowed.

**Precautionary statement**

**Prevention:** Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Keep/Store away from clothing/combustible materials. Take any precaution

to avoid mixing with combustibles. Wear protective gloves/protective clothing/eye protection/face protection. Wear fire/flame resistant/retardant clothing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

**Response:** IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. In case of fire: Use water spray, foam, dry powder or carbon dioxide for extinction. IF exposed or concerned: Get medical advice/attention. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

**Storage:** Store locked up.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification:** None.

### 3. Composition/information on ingredients

#### Substances

Chemical identity	Common name and synonyms	CAS number	Content in percent (%)*
POTASSIUM BROMATE		7758-01-2	90 - 100%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

**General information:** Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance. Ensure that emergency personnel are aware of the material involved, and take precautions to protect themselves.

**Ingestion:** Rinse mouth. Get medical attention if symptoms occur. Do not induce vomiting without advice from poison control center.

**Inhalation:** Move to fresh air. Get medical attention if symptoms persist. If breathing stops, provide artificial respiration. For breathing difficulties, oxygen may be necessary.

**Skin contact:** Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation persists after washing. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes. IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

**Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

#### Most important symptoms/effects, acute and delayed

**Symptoms:** May cause irritation to skin, eyes, and respiratory tract.

#### Indication of immediate medical attention and special treatment needed

**Treatment:** Symptoms may be delayed. Treat symptomatically.

## 5. Fire-fighting measures

**General fire hazards:** Oxidizing material. In case of fire and/or explosion do not breathe fumes.

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** None known.

**Specific hazards arising from the chemical:** Strong oxidizer - contact with other material may cause fire. Explosion risk in case of fire.

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Keep unauthorized personnel away. Ventilate closed spaces before entering them. Use personal protective equipment. See Section 8 of the MSDS for Personal Protective Equipment.

**Methods and material for containment and cleaning up:** Remove sources of ignition. Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination. Use only non-sparking tools.

**Notification Procedures:** Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.

**Environmental precautions:** Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

## 7. Handling and storage

**Precautions for safe handling:** Do not taste or swallow. Wash hands thoroughly after handling. Avoid contact with eyes. Keep away from food, drink and animal feeding stuffs. Keep away from combustible material. Do not eat, drink or smoke when using the product. Do not smoke, use open fire or other sources of ignition. Use personal protective equipment as required. See Section 8 of the MSDS for Personal Protective Equipment. Observe good industrial hygiene practices. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wear protective gloves/protective clothing/eye protection/face protection. Take any precaution to avoid mixing with combustibles. Wear fire/flame resistant/retardant clothing. Avoid contact with skin. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

**Conditions for safe storage, including any incompatibilities:** Keep container tightly closed in a cool, well-ventilated place. Keep container dry. Store away from incompatible materials. Eliminate sources of ignition. Store locked up.

## 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

None of the components have assigned exposure limits.

#### Appropriate engineering controls

No data available.

### Individual protection measures, such as personal protective equipment

**General information:** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.

**Eye/face protection:** Wear safety glasses with side shields (or goggles) and a face shield.

#### Skin protection

**Hand protection:** Chemical resistant gloves

**Other:** Wear suitable protective clothing.

**Respiratory protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**Hygiene measures:** Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Avoid contact with eyes, skin, and clothing.

## 9. Physical and chemical properties

### Appearance

**Physical state:** Solid  
**Form:** Crystals or powder.  
**Color:** White

**Odor:** Odorless

**Odor threshold:** No data available.

**pH:** No data available.

**Melting point/freezing point:** Approximate 350 °C

**Initial boiling point and boiling range:** 370 °C Decomposes

**Flash Point:** Not applicable

**Evaporation rate:** No data available.

**Flammability (solid, gas):** No data available.

#### Upper/lower limit on flammability or explosive limits

**Flammability limit - upper (%):** No data available.

**Flammability limit - lower (%):** No data available.

<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	5.8 AIR=1
<b>Relative density:</b>	3.27 (20 °C)
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	69.1 g/l (20 °C) 497 g/l (100 °C)
<b>Solubility (other):</b>	acetone: Practically Insoluble ethanol: Practically Insoluble
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.
<b>Other information</b>	
<b>Molecular weight:</b>	167.00 g/mol (BrHO3.K)

## 10. Stability and reactivity

<b>Reactivity:</b>	No dangerous reaction known under conditions of normal use.
<b>Chemical stability:</b>	Risk of explosion if heated.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Heat, sparks, flames. Moisture. Shocks and physical damage. Contact with incompatible materials.
<b>Incompatible materials:</b>	Reducing agents. Flammable/combustible material. Organic compounds. Acids. Aluminum. Arsenites. Carbonates. Copper. Metals. Metal oxides. Powdered metal. Phosphorus. Phosphorus halides. Lead. Sulfur oxides.
<b>Hazardous decomposition products:</b>	By heating and fire, toxic vapors/gases may be formed. Oxygen.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion:</b>	Harmful if swallowed.
<b>Inhalation:</b>	May be harmful if inhaled.
<b>Skin contact:</b>	May cause irritation.
<b>Eye contact:</b>	May irritate eyes.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral</b>	
<b>Product:</b>	LD 50 (Rat): 321 mg/kg
<b>Dermal</b>	
<b>Product:</b>	No data available.
<b>Inhalation</b>	
<b>Product:</b>	No data available.

**Repeated dose toxicity**

**Product:** No data available.

**Skin corrosion/irritation**

**Product:** May cause skin irritation.

**Serious eye damage/eye irritation**

**Product:** May irritate eyes.

**Respiratory or skin sensitization**

**Product:** Not a skin sensitizer.

**Carcinogenicity**

**Product:** May cause cancer.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

POTASSIUM BROMATE Overall evaluation: 2B. Possibly carcinogenic to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ cell mutagenicity**

**In vitro**

**Product:** No mutagenic components identified

**In vivo**

**Product:** No mutagenic components identified

**Reproductive toxicity**

**Product:** No components toxic to reproduction

**Specific target organ toxicity - single exposure**

**Product:** No data available.

**Specific target organ toxicity - repeated exposure**

**Product:** No data available.

**Aspiration hazard**

**Product:** Not classified

**Other effects:** None known.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic invertebrates**

**Product:** No data available.

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and degradability**

**Biodegradation**

**Product:** There are no data on the degradability of this product.

**BOD/COD ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration factor (BCF)**

**Product:** No data available on bioaccumulation.

**Partition coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Mobility in soil:**

The product is water soluble and may spread in water systems.

**Other adverse effects:**

Contains a substance which causes risk of hazardous effects to the environment.

**13. Disposal considerations**

**Disposal instructions:**

Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Contaminated packaging:**

Since emptied containers retain product residue, follow label warnings even after container is emptied.

**14. Transport information**

**DOT**

UN number:	UN 1484
UN proper shipping name:	Potassium bromate
Transport hazard class(es)	
Class(es):	5.1
Label(s):	5.1
Packing group:	II
Marine Pollutant:	No

**IMDG**

UN number: UN 1484  
 UN proper shipping name: POTASSIUM BROMATE  
 Transport hazard class(es)  
   Class(es): 5.1  
   Label(s): 5.1  
   EmS No.: F-H, S-Q  
 Packing group: II  
 Marine Pollutant: No

**IATA**

UN number: UN 1484  
 Proper Shipping Name: Potassium bromate  
 Transport hazard class(es):  
   Class(es): 5.1  
   Label(s): 5.1  
 Marine Pollutant: No  
 Packing group: II

**15. Regulatory information**

**US federal regulations**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

None present or none present in regulated quantities.

**Superfund amendments and reauthorization act of 1986 (SARA)**

**Hazard categories**

Acute (Immediate)  Chronic (Delayed)  Fire  Reactive  Pressure Generating

**SARA 302 Extremely hazardous substance**

None present or none present in regulated quantities.

**SARA 304 Emergency release notification**

None present or none present in regulated quantities.

**SARA 311/312 Hazardous chemical**

Chemical identity	Threshold Planning Quantity
POTASSIUM BROMATE	500 lbs

**SARA 313 (TRI reporting)**

Chemical identity	Reporting threshold for other users	Reporting threshold for manufacturing and processing
POTASSIUM BROMATE	10000 lbs	25000 lbs.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**US state regulations**



**US. California Proposition 65**

POTASSIUM BROMATE      Carcinogenic.

**US. New Jersey Worker and Community Right-to-Know Act**

POTASSIUM BROMATE      Listed

**US. Massachusetts RTK - Substance List**

POTASSIUM BROMATE      Listed

**US. Pennsylvania RTK - Hazardous Substances**

POTASSIUM BROMATE      Listed

**US. Rhode Island RTK**

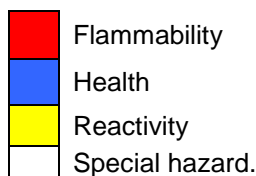
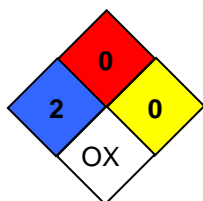
POTASSIUM BROMATE      Listed

**Inventory Status:**

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Japan ISHL Listing:	On or in compliance with the inventory
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.

**16. Other information, including date of preparation or last revision**

**NFPA Hazard ID**



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

OX: Oxidizing agent

<b>Issue date:</b>	09-09-2014
<b>Revision date:</b>	No data available.
<b>Version #:</b>	1.0
<b>Further information:</b>	No data available.

**Disclaimer:**

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