

MATERIAL SAFETY DATA SHEET**POTASSIUM BROMIDE**

PRODUCT CODE NUMBER(S): 5760-1, 5761-1

PRODUCT IDENTIFICATION

Chemical Name and Synonyms: *Potassium bromide*
Chemical Family: *Alkali metal halide*
Chemical Formula: *KBr*
Product Use: *Laboratory chemical*
Manufacturer's Name and Address:
Caledon Laboratories Ltd.
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HAZARDOUS INGREDIENTS OF MATERIALS

<i>Ingredients</i>	<i>%</i>	<i>TLV Units</i>	<i>CAS No.</i>
<i>Potassium bromide</i>	<i>>99</i>	<i>Not established</i>	<i>7758-02-3</i>

PHYSICAL DATA

Physical State: *Solid*
Odour and Appearance: *White, crystalline material; slightly hygroscopic*
Odour Threshold (ppm): *Odourless*
Vapour Pressure (mm Hg): *1 mm Hg at 800°C*
Vapour Density (Air = 1): *Not applicable*
Evaporation Rate: *None*
Boiling Point (degrees C): *1,435°C*
Freezing Point (degrees C): *734°C*
pH: *5 - 8 (5% solution)*
Specific Gravity: *2.74*
Coefficient of Water/Oil distribution: *Not available*

SHIPPING DESCRIPTION

UN: *Not regulated*
T.D.G. Class: *Not regulated*
Pkg. Group: *Not regulated*

REACTIVITY DATA

Chemical Stability: *Stable under normal conditions of use and storage. Hygroscopic; absorbs water from air.*
Incompatibility with other substances: *Reacts violently with bromine trifluoride, bromine trichloride; can react violently or explosively with strong oxidizing agents, strong acids, heavy metal salts.*
Reactivity: *Avoid excessive heat, generation of dust, incompatible materials, moisture.*
Hazardous Decomposition Products: *On excessive heating or dissolution in water, toxic fumes of bromine or hydrogen bromide may evolve.*

FIRE AND EXPLOSION DATA

Flammability: *Not combustible; will not burn.*
Extinguishing Media: *Use extinguishing media appropriate to the surrounding fire. Water in flooding amounts can be used to cool containers, prevent dust formation, flush chemical away from fire. Fight fire from upwind direction, from a safe distance. Firefighters should wear protective equipment and clothing sufficient to prevent inhalation of dust or fumes and contact with skin and eyes.*
Flash Point (Method Used): *Not applicable*
Autoignition Temperature: *Not applicable*
Upper Flammable Limit (% by volume): *Not applicable*
Lower Flammable Limit (% by volume): *Not applicable*
Hazardous Combustion Products: *Toxic fumes of bromine or hydrogen bromide.*
Sensitivity to Impact: *None identified*
Sensitivity to Static discharge: *None identified*

TOXICOLOGICAL PROPERTIES AND HEALTH DATA**Toxicological Data:**

LD₅₀: *(oral, rat) 3,070 (KBrO₃)*
LC₅₀: *Not established*

Effects of Acute Exposure to Product:

Inhaled: *Dusts and mists may be irritating to upper respiratory tract, causing coughing, shortness of breath. Severe or prolonged overexposures may be harmful.*

In contact with skin: *Dust may cause irritation with itching, redness, pain. Combines with perspiration on skin to form solution which can cause moderate to severe irritation. Severity of effects depends on degree and duration of exposure.*

In contact with eyes: *Dust may cause irritation, but reacts with moisture in the eyes to form moderate to severely irritating solution, with tearing, pain, blurred vision, transient corneal injury. Severity of effects depends on degree and duration of exposure.*

Ingested: *Causes irritation to gastrointestinal tract, with nausea, vomiting, abdominal pain, diarrhea. Large doses of bromide can cause CNS disturbances, coma, paralysis.*

Effects of Chronic Exposure to Product:

Prolonged or repeated ingestion may cause irritability, confusion, skin eruptions, tremor, memory loss, anorexia, headache, slurred speech. Prolonged or repeated skin exposure can cause dermatitis. Prolonged inhalation may cause bronchitis.

Carcinogenicity: *Not listed as carcinogenic by NTP, IARC, OSHA*

Teratogenicity: *Bromism has been reported in the offspring of mothers who suffered bromide poisoning during their pregnancies.*

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Reproductive Effects: No information available

Mutagenicity: No information available

Synergistic Products: None known

Ingestion: If victim is alert and NOT convulsing, rinse mouth thoroughly with water and give 2 to 4 glasses of water to drink to dilute. Get medical attention.

PREVENTIVE MEASURES

Engineering Controls: Local exhaust ventilation recommended.

Respiratory Protection: Dust/mist mask. For conditions where dust is present, to the maximum use specified by the respirator supplier, NIOSH/OSHA approved half-face high-efficiency dust/mist filter respirator, or NIOSH/OSHA approved full face-piece high-efficiency dust/mist filter respirator. Higher or unknown concentrations, or for fire or spill conditions, self-contained breathing apparatus, or full face-piece, positive-pressure supplied-air respirator.

Eye Protection: Safety glasses or goggles. Do not wear contact lenses when working with chemicals.

Skin Protection: Rubber gloves. Plastic apron, sleeves, as required to prevent contact.

Other Personal Protective Equipment: Eyewash fountain and safety shower in work area.

Leak and Spill Procedure: Ventilate area. Cleanup personnel must be thoroughly trained in the hazards of this material and must wear protective equipment and clothing sufficient to prevent inhalation of dust or mist, and contact with skin and eyes. Prevent from entering sewers or waterways. Mix with sand or inert absorbent, collect in a manner that does not raise dust (wet if necessary), and transfer carefully into labelled, covered container(s) for removal by disposal company. Wash site of spillage thoroughly with water and detergent.

Waste Disposal: Follow all federal, provincial and local regulations for disposal.

Handling Procedures and Equipment: IRRITANT.

Workers must be thoroughly trained in the hazards of this substance and its safe use, and must wear appropriate protective equipment and clothing. Use routine safe handling procedures. Use good housekeeping procedures to prevent accumulation of dust. Use the smallest amount possible for the purpose in designated areas with adequate ventilation. Avoid generating dust. Avoid contact with eyes, skin, or clothing; avoid breathing dust. Wash thoroughly after handling.

Storage Requirements: Store in a cool, DRY, well-ventilated area, out of direct sunlight, and away from incompatible materials. Keep containers tightly closed. Product will cake on exposure to excess moisture, but caking does not affect material in hazardous manner.

FIRST AID MEASURES

Specific Measures:

Eyes: Flush thoroughly with gently running water for ten to fifteen (10-15) minutes, holding eyelids open while flushing. Take care not to flush contaminated water into unaffected eye. Wear protective gloves to avoid contact with this chemical during first aid procedures. Get medical attention immediately.

Skin: Remove contaminated clothing. Brush or wipe off dry material. Flush skin with plenty of running water until no evidence of chemical remains. If irritation develops get medical attention. Decontaminate clothing before reuse, or discard.

Inhalation: Remove to fresh air. Give oxygen and get medical attention for any breathing difficulty.

REFERENCES USED

CCINFO disc

Budavari: The Merck Index, 12th ed., 1997

Sax, Lewis: Hawley's Condensed Chemical Dictionary, 11th ed., 1987

Suppliers' Material Safety Data Sheets

ADDITIONAL INFORMATION

Date Issued: March 10, 1989

Revision: June 2011

MSDS: 5760-1, 5761-1

Proposed WHMIS Designation: D2B

Prepared by: Caledon Laboratories Ltd. (905) 877-0101
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