

MATERIAL SAFETY DATA SHEET**POTASSIUM SULPHATE**

PRODUCT CODE NUMBER(S): 6760-1

PRODUCT IDENTIFICATION

Chemical Name and Synonyms: Potassium sulphate;
Sulphate of potash
Chemical Family: Inorganic salt
Chemical Formula: K_2SO_4
Product Use: Laboratory reagent
Manufacturer's Name and Address:
Caledon Laboratories Ltd.
40 Armstrong Avenue
Georgetown, Ontario L7G 4R9
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HAZARDOUS INGREDIENTS OF MATERIALS

Ingredients	%	TLV Units	CAS No.
Potassium sulphate	>99	Not established	7778-80-5

PHYSICAL DATA

Physical State: Solid
Odour and Appearance: White crystalline powder; odourless
Odour Threshold (ppm): Not applicable
Vapour Pressure (mm Hg): Not applicable
Vapour Density (Air = 1): Not applicable
Evaporation Rate: Not applicable
Boiling Point (degrees C): 1689°C
Melting Point (degrees C): 1069°C
pH: 7 (aqueous solution)
Specific Gravity: 2.660
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
Incompatibility with other substances: Reacts violently with magnesium and aluminum at elevated temperatures.
Reactivity: Avoid open flames and other high temperature sources which may induce thermal decomposition. Avoid generation of dust, all incompatible materials.
Hazardous Decomposition Products: SO_x , K_2O

FIRE AND EXPLOSION DATA

Flammability: Not combustible

Extinguishing Media: Use an extinguisher appropriate to the surrounding material which is burning. Use water as spray or fog to minimize dust, absorb heat, cool containers, and disperse vapours. Fight fire from upwind, from a safe distance. Firefighters should wear protective equipment, full face-piece positive-pressure self-contained breathing apparatus, and clothing sufficient to prevent inhalation of dust or fumes, and contact with skin and eyes.

Flash Point (Method Used): None

Autoignition Temperature: Not applicable

Upper Flammable Limit (% by volume): Not applicable

Lower Flammable Limit (% by volume): Not applicable

Hazardous Combustion Products: SO_x , K_2O

Sensitivity to Impact: None identified

Sensitivity to Static discharge: None identified

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

LD₅₀: Not available

LD_{Lo}: (scu, guinea pig) 3 gm/kg; (oral, wmn) 800 mg/kg

LC₅₀: Not available

Effects of Acute Exposure to Product:

Inhaled: May cause mechanical irritation, with coughing, choking. Inhalation of large amounts may be harmful.

In contact with skin: Dust may cause mechanical skin irritation. Concentrated solutions may be irritating, causing redness, itching, temporary pain. Probably not absorbed through skin.

In contact with eyes: May cause temporary mechanical irritation, with redness, tearing, itching and pain.

Ingested: Used as a food additive and cathartic; not expected to be a hazard. Large doses may cause gastrointestinal irritation and diarrhea.

Effects of Chronic Exposure to Product:

Prolonged or repeated contact may cause skin irritation or eye damage. Kidney disorders may be aggravated by chronic exposure.

Carcinogenicity: Not considered carcinogenic (NTP, OSHA, IARC)

Teratogenicity: No information available

Reproductive Effects: No information available

Mutagenicity: No information available

Synergistic Products: None known

PREVENTIVE MEASURES

Engineering Controls: Local exhaust ventilation recommended.

Respiratory Protection: Dust/mist mask. Up to 10x TLV, or the maximum use specified by the respirator supplier, whichever is lowest, NIOSH approved half-face

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high-efficiency dust/mist filter respirator. Up to 50x TLV, or the maximum use specified by the respirator supplier, whichever is lowest, NIOSH 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: Chemical safety goggles. Do not use contact lenses when working with chemicals.

Skin Protection: Gloves, rubber or plastic. Other protective clothing, long-sleeved shirt, trousers, apron, or boots, sufficient to prevent contact.

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

Leak and Spill Procedure: Stop or contain leak. Ventilate area. Cleanup personnel must be thoroughly trained in the handling of hazardous materials, and must wear protective equipment and clothing sufficient to prevent inhalation of dust or fumes and contact with skin and eyes. Mix with inert absorbent and transfer carefully into container for removal by disposal company. Wet if necessary to prevent generation of dust. Prevent from entering sewers or waterways. Wash site of spillage thoroughly with water and detergent.

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

Handling Procedures and Equipment: Workers using this material must be thoroughly trained in its hazards and its safe use, and must wear appropriate protective equipment and clothing. Use the smallest amount possible for the purpose, in a designated area with adequate ventilation. Use good housekeeping to prevent accumulations of dust. Avoid contact with skin and eyes. Avoid inhalation. Wash thoroughly after handling.

Storage Requirements: Store in suitable, labelled containers, in a cool, dry, well-ventilated area, out of direct sunlight and away from incompatible materials. Keep containers tightly closed.

FIRST AID MEASURES

Specific Measures:

Eyes: Flush eyes thoroughly with gently running water, holding eyelids open while flushing, for five to ten (5-10) minutes, or until no trace of chemical remains. Get medical advice if irritation develops.

Skin: Remove contaminated clothing. Brush or wipe off dry material. Wash skin with plenty of water until no evidence of chemical remains. If irritation develops get medical attention.

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

Ingestion: If the victim is alert and not convulsing, rinse mouth thoroughly with water and give 2 to 4 glasses of water to drink to dilute. If victim feels unwell, or if a large amount has been ingested, get medical attention.

REFERENCES USED

CCINFO disc

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

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

Sax: *Dangerous Properties of Industrial Materials*, 5th ed., 1979

Suppliers' Material Safety Data Sheets

ADDITIONAL INFORMATION

Date Issued: February 20, 1990

Revision: January 2011

MSDS: 6760-1

Proposed WHMIS Designation: Not a controlled product. Not required to be updated every three years (WHMIS 1992, B-40, Section 29,2)

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