

PRODUCT IDENTIFICATION

Chemical Name and Synonyms: Sodium sulphate, anhydrous;
Disodium sulphate; Saltcake
Chemical Family: Inorganic salt
Chemical Formula: Na₂SO₄
Product Use: Laboratory chemical
Manufacturers Name and Address: Caledon Laboratories Ltd. 40
Armstrong Avenue Georgetown, Ontario L7G 4R9
Telephone No.: (905) 877-0101
Fax No.: (905) 877-6666
Emergency Telephone No.: CANUTEC (613) 996-6666

HAZARDOUS INGREDIENTS OF MATERIALS

Ingredients, %, TLV Units, CAS No.: Sodium sulphate, > 97, Not established, 7757-82-6

PHYSICAL DATA

Physical State: Solid
Odour and Appearance: White powder or granular material;
odourless
Odour Threshold (ppm): Not applicable.
Vapour Pressure (mm Hg): Not available.
Vapour Density (Air = 1): Not available.
Evaporation Rate: Not applicable.
Boiling Point (degrees C): 1100 °C (decomposes)
Melting Point (degrees C): 888 °C
pH: 5.0 to 7.0 (1 M, aqueous, 20 °C)
Specific Gravity: 2.68
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, hygroscopic - absorbs moisture or water from the air.
Incompatibility with other substances: Aluminum, magnesium, strong mineral acids, strong alkalis. Violent explosions will occur when sodium sulphate is melted with aluminum or magnesium.
Reactivity: Protect from moisture (hygroscopic). Avoid excessive heat, generation of dust, all incompatible materials.
Hazardous Decomposition Products: Toxic oxides of sulphur and sodium when heated to decomposition.

FIRE AND EXPLOSION DATA

Extinguishing Media: Use an extinguisher appropriate to the surrounding material that is burning. Water spray can be used to cool containers, prevent dust formation, flush chemical away from fire. Fight fire from a safe distance and from upwind. 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 oxides of sodium and sulphur

Sensitivity to Impact: None

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

LD50: (oral, mouse) 5,989 mg/kg

LC50: Not available.

Effects of Acute Exposure to Product:

Inhaled: Mild irritant. May cause temporary coughing and sneezing. Inhalation of large amounts may be harmful.

In contact with skin: Effects of sodium sulphate are minimal, but irritation may result from prolonged skin contact. May cause allergic dermatitis in some individuals.

In contact with eyes: Dust or solutions may cause irritation, with temporary itching, redness, tearing.

Ingested: Not considered toxic. May cause mild irritation in the mouth, esophagus and stomach. Slowly absorbed from the alimentary tract. Because of osmotic activity, it will draw water into the bowel and, if large quantities are ingested, may cause purging and fluid loss.

Carcinogenicity: Not expected to be carcinogenic.

Teratogenicity: Not listed as teratogenic by IARC, NTP, ACGIH, NIOSH.

Reproductive Effects: Cited for mice from injected doses of 60 mg/kg (RTECS No. WE1650000). Conditions not considered relevant to worker exposure.

Mutagenicity: No information available.

Synergistic Products: None known.

PREVENTIVE MEASURES

Engineering Controls: Local exhaust ventilation.

Respiratory Protection: Dust mask. NIOSH/MSHA approved respirator with dust filter for dusty conditions. For higher or unknown concentrations, as in spill or fire conditions, supplied-air respirator or full face-piece positive-pressure self-contained breathing apparatus.

Eye Protection: Chemical safety glasses. Do not wear contact lenses when working with chemicals.

Skin Protection: Wear protective gloves and clean body-covering clothing, long-sleeved shirt, trousers, apron or lab coat.

Other Personal Protective Equipment: Eye bath and safety shower available and ready for use.

Leak and Spill Procedure: Ventilate area. Cleanup personnel should be trained in the handling of hazardous chemicals and should wear protective equipment and clothing sufficient to prevent inhalation of dust or fumes, and contact with skin and eyes. Gather up in a manner that does not generate dust (wet if necessary), and collect for reuse or disposal. Prevent from entering sewers or waterways. Flush area of spill with copious amounts of running water.

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

Handling Procedures and Equipment: Workers using this chemical must be properly trained in its hazards and its safe use, and must wear appropriate protective equipment and clothing. Keep work areas free of incompatible materials. Use good housekeeping practices to prevent accumulations of dust. Use the smallest amount possible for the purpose in a designated area with adequate ventilation. Avoid generating dusts. AVOID ALL CONTACT AND INHALATION. Keep containers closed when not in use. Wash thoroughly after working with this chemical.

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

FIRST AID MEASURES

Specific Measures:

Eyes: Flush eyes thoroughly with gently running water, holding eyelids open while flushing, for five to ten (5 to 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. Flush skin with plenty of running water until no evidence of chemical remains. Get medical advice if irritation develops. Decontaminate clothing before reuse.

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention for irritation or discomfort from dust inhalation.

Ingestion: Rinse mouth thoroughly with water and give 2 to 4 glasses of water to drink to dilute. If victim feels unwell, or if a very large amount has been ingested, get medical attention.

REFERENCES USED

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

CCINFO disc: MSDSs, April 2007

Sax, Lewis: Hawleys Condensed Chemical Dictionary, 11th ed., 1987

Suppliers Material Safety Data Sheets:

ADDITIONAL INFORMATION

Date Issued: 01-Nov-88

Revision: Apr 2013

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