

MATERIAL SAFETY DATA SHEET**SORBITOL**

PRODUCT CODE NUMBER(S): 8490-5

PRODUCT IDENTIFICATION

Chemical Name and Synonyms: Sorbitol; Sorbite;
D-Glucitol; Hexahydric alcohol
Chemical Family: Sugar alcohol
Chemical Formula: $C_6H_{14}O_6$
Product Use: Laboratory reagent
Manufacturer's Name and Address:
Caledon Laboratories Ltd.
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HAZARDOUS INGREDIENTS OF MATERIALS

Ingredients	%	TLV Units	CAS No.
Sorbitol	>98	Not established	50-70-4

PHYSICAL DATA

Physical State: Solid
Odour and Appearance: White, odourless crystals, with sweet taste
Odour Threshold (ppm): Not applicable
Vapour Pressure (mm Hg): <0.1 mm @ 25°C
Vapour Density (Air = 1): <1
Evaporation Rate: Not applicable
Boiling Point (degrees C): 105°C
Melting Point (degrees C): 98°C to 100°C
pH: Neutral to litmus
Specific Gravity: ~1.4
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.
Incompatibility with other substances: May react violently with strong oxidizers.
Reactivity: Avoid excessive heat, ignition sources, generation of dust.
Hazardous Decomposition Products: None identified

FIRE AND EXPLOSION DATA

Flammability: Combustible if strongly heated. Can burn at elevated temperatures or by contact with ignition source. As

with most organic compounds, fine dust dispersed in air in the presence of an ignition source is a potential dust explosion hazard.

Extinguishing Media: Water, CO₂, foam. Treat as oil or fat; if water is used, use as fog to prevent splattering of hot liquid. Use water spray or fog to disperse vapours and cool containers. Fight fire from upwind, from a safe distance. Firefighters must wear protective equipment (positive-pressure, full face-piece self-contained breathing apparatus) and clothing sufficient to prevent inhalation of dust or fumes, and contact with skin and eyes.

Flash Point (Method Used): 630°C

Autoignition Temperature: Not available

Upper Flammable Limit (% by volume): Not available

Lower Flammable Limit (% by volume): Not available

Hazardous Combustion Products: CO, CO₂

Sensitivity to Impact: None identified

Sensitivity to Static discharge: As with most organic powders, mixtures of dust with air may be sensitive under certain conditions, when ignited by an electrostatic or other high-voltage spark, or other ignition source.

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

LD₅₀: (oral, rat) >10 g/kg; (iv, rat) >7 g/kg

LC₅₀: Not available

Effects of Acute Exposure to Product:

Not a hazardous substance. May cause mechanical irritation.

Inhaled: Dust may cause mechanical irritation, coughing, sneezing.

In contact with skin: No adverse effects expected.

In contact with eyes: No adverse effects expected but dust may cause temporary mechanical irritation, reddening, tearing.

Ingested: Extremely large oral dosages may produce gastrointestinal irritation.

Effects of Chronic Exposure to Product:

Carcinogenicity: No information available

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 mask, or NIOSH/MSHA approved supplied-air respirator for dusty conditions. High or unknown concentrations, as in fire or spill conditions: posi-

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tive-pressure full face-piece self-contained breathing apparatus or positive-pressure full face-piece supplied-air respirator with auxiliary positive-pressure self-contained breathing apparatus

Eye Protection: *Chemical safety glasses.*

Skin Protection: *Protective gloves. Other protective clothing, sleeves, apron, coverall, boots, sufficient to limit contact.*

Other Personal Protective Equipment: *Safety shower and eye-wash fountain in work area.*

Leak and Spill Procedure: *CAUTION: floor may become slippery. Eliminate all sources of ignition. Cleanup personnel should wear protective equipment and clothing sufficient to prevent inhalation of dust or fumes, and contact with skin and eyes. Contain spill with inert material (earth, sand, inert absorbent). Avoid generating dust. Collect in suitable, labelled, covered containers for disposal. Flush area of spill with large amounts of running water.*

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

Handling Procedures and Equipment: *Workers using this chemical must be trained in its hazards and its safe use. Follow routine safe handling procedures and good house-keeping procedures. Avoid generating dust. Avoid contact with skin and eyes. Use the smallest amount possible for the purpose, in designated areas with adequate ventilation. Keep containers closed when not in use and when empty.*

Storage Requirements: *Store in suitable, labelled containers, in a cool, dry, well-ventilated area, out of direct sunlight. Keep containers tightly closed when not in use and when empty. Protect from damage. Store away from incompatible materials.*

Prepared by: Caledon Laboratories Ltd. 877-0101

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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. Flush skin with plenty of running water until no evidence of chemical remains. Get medical advice if irritation develops.*

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

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

CCINFO disc: MSDS's, April 2007

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

Suppliers' Material Safety Data Sheets

ADDITIONAL INFORMATION

Date Issued: *November 25, 1991*

Revision: *April 2010*

MSDS: *8490-5*

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