

MATERIAL SAFETY DATA SHEET**MALTOSE**

PRODUCT CODE NUMBER(S): 4950-5

PRODUCT IDENTIFICATION

Chemical Name and Synonyms: Maltose
Chemical Family: Sugars
Chemical Formula: $C_{12}H_{22}O_{11}$
Product Use: Laboratory reagent
Manufacturer's 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.
Maltose	>95	Not established	6363-53-7

PHYSICAL DATA

Physical State: Solid
Odour and Appearance: White or tan powder; odourless
Odour Threshold (ppm): Not applicable
Vapour Pressure (mm Hg): Not available
Vapour Density (Air = 1): Not available
Evaporation Rate: Not available
Boiling Point (degrees C): Not available
Melting Point (degrees C): 102°C (decomposes)
pH: Not available
Specific Gravity: 1.540
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 temperatures and pressures.
Incompatibility with other substances: May react violently or explosively with strong oxidizers.
Reactivity: Avoid excessive heat, ignition sources, generation of dust, incompatible materials.
Hazardous Decomposition Products: CO_x

FIRE AND EXPLOSION DATA

Flammability: May be combustible if strongly heated or as dust. 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: Use extinguisher appropriate to the surrounding material that is burning. Use water as spray or fog to cool containers, prevent dust formation, flush chemical away from fire. Fight fire from upwind, 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 CO_x

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

To the best of our knowledge the physical, chemical and toxicological properties of this substance have not yet been thoroughly investigated.

Toxicological Data:

LD₅₀: Not available

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: Tests on laboratory animals indicate material may cause biochemical, metabolic and physical effects on newborn (RTECS No. OO5250000)

Reproductive Effects: No information available

Mutagenicity: No information available

Synergistic Products: None found

CODE: 4950-5

PREVENTIVE MEASURES

Engineering Controls: Normal ventilation for standard manufacturing procedures is generally adequate. Local exhaust should be used when large amounts are released or when dust is present.

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

Eye Protection: Chemical safety glasses.

Skin Protection: Rubber gloves. Lab coat or apron with sleeves.

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

Leak and Spill Procedure: Gather up in a manner that does not raise dust (wet if necessary). Flush to sewer with plenty of water, or if amount is very large, transfer into containers and arrange removal by disposal company. Wash site of spillage thoroughly with water and detergent. For large spill, cleanup personnel should wear protective equipment and clothing sufficient to prevent inhalation and contact.

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

Handling Procedures and Equipment: Follow routine safe handling and good housekeeping procedures. Wear appropriate protective clothing and equipment. Use the smallest amount possible for the purpose, in a designated area with adequate ventilation. Avoid inhalation of dust and unnecessary contact. If dust is present, observe explosion prevention measures, use non-sparking tools, keep away from heat, sparks, and all sources of ignition; avoid the accumulation of static charge, ground and bond equipment and containers.

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.

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: June 17, 1991

Revision: April 2010

MSDS: 4950-5

Proposed WHMIS Designation: Not controlled. 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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