CALEDON LABORATORY CHEMICALS

MATERIAL SAFETY DATA SHEET

DEXTROSE

PRODUCT CODE NUMBER(S): 3260-1, 3265-1

PRODUCT IDENTIFICATION

Chemical Name and Synonyms: *Dextrose; D-glucose; corn sugar*
Chemical Family: *Sugars, hydrocarbons*
Chemical Formula: $C_6H_{12}O_6$
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.*
Dextrose	*99*	*10 mg/m^3 (nuisance dust)*	*50-99-7*

PHYSICAL DATA

Physical State: *Solid*
Odour and Appearance: *White crystalline powder. Sweet taste. 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): *Not applicable*
Melting Point (°C): *156-158°C*
pH: *5.9 (0.5M aqueous)*
Specific Gravity: *1.54*
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: *Strong oxidizig agents, strong acids. Reaction with concentrated sulphuric acid releases heat and CO_x.*
Reactivity: *Avoid excessive heat, ignition sources, generation of dust.*
Hazardous Decomposition Products: *CO_x when heated to decomposition.*

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 buring. Use water as spray or fog to cool containers, prevent dust formation, flush chemcial 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 available*
Autoignition Temperature: *Not available*
Upper Flammable Limit (% by volume): *Not available*
Lower Flammable Limit (% by volume): *Not available*
Hazardous Combustion Products: *CO_x, irritating smoke*
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:

LD_{50}: *(oral, rat) 25,800 mg/kg*
LC_{50}: *Not applicable*

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 causetemporary mechanical irritation, reddening, tearing.*
Ingested: *Extremely large oral dosages may produce gastrointestinal irritataion and weight gain.*

Effects of Chronic Exposure to Product:

Non-toxic. No ill effects reported.
Carcinogenicity: *Not considered to be a carcinogen by NTP, IARC, or OSHA*
Teratogenicity: *No known effects*
Reproductive Effects: *No known effects*
Mutagenicity: *No known effects*
Synergistic Products: *Not known*

MSDS DEXTROSE

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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 fountain ans 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 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. 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: *Rrinse 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

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

Suppliers' Material Safety Data Sheets

ADDITIONAL INFORMATION

Date Issued: *December 1, 1988*

Revision: *April 2010*

MSDS: *3260-1, 3265-1*

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

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