

MATERIAL SAFETY DATA SHEET**BIS-TRIS**

PRODUCT CODE NUMBER(S): 2490-5

PRODUCT IDENTIFICATION

Chemical Name and Synonyms: *Bis-Tris, bis(2-hydroxyethyl)imino-tris(hydroxymethyl)methane; 1,3-Propanediol*

Chemical Family: *Organic compound*

Chemical Formula: $C_8H_{19}NO_5$

Product Use: *Laboratory reagent*

Manufacturer's Name and Address:

*Caledon Laboratories Ltd.
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HAZARDOUS INGREDIENTS OF MATERIALS

<i>Ingredients</i>	<i>%</i>	<i>TLV Units</i>	<i>CAS No.</i>
<i>Bis-Tris</i>	<i>98</i>	<i>Not established</i>	<i>6976-37-0</i>

PHYSICAL DATA

Physical State: *Solid*

Odour and Appearance: *White 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): *104°C*

pH: *5.5-8.0 (aqueous solution)*

Specific Gravity: *Not available*

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: *May react with strong oxidizing agents*

Reactivity: *Avoid excessive heat, ignition sources, generation of dust.*

Hazardous Decomposition Products: CO_x, NO_x

FIRE AND EXPLOSION DATA

Flammability: *May be combustible if strongly heated. 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 fog or spray, alcohol foam, dry chemical, carbon dioxide. Water spray can also be used to cool containers, prevent dust formation, flush chemical away from fire. Fight fire from upwind, from a safe distance. Firefighters must 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, NO_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:

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

In contact with skin: *No human or animal information available. Dust or solutions may cause mild irritation with redness and pain. May cause allergic reaction.*

In contact with eyes: *No human or animal information available. Dust or solutions may cause irritation, with temporary itching, redness, tearing.*

Ingested: *Large amounts may be irritating to gastrointestinal tract, causing nausea, vomiting, abdominal pain and diarrhea.*

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 recommended.*

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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 goggles. 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: Safety shower and eye-wash fountain in work area.

Leak and Spill Procedure: Ventilate area of spill. Shut off all sources of ignition. Clean-up personnel should wear protective equipment and clothing sufficient to prevent inhalation of dusts or vapours and contact with skin and eyes. Mix with inert absorbent, gather up and place in suitable containers for reclamation or disposal. Flush site of spill thoroughly with copious amounts of water.

Waste Disposal: Dispose of in compliance with local, provincial and federal regulations.

Handling Procedures and Equipment: May be COMBUSTIBLE AS DUST. Workers using this chemical must be properly trained in its hazards and its safe use, and must wear appropriate protective equipment and clothing. 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. Keep work areas free of incompatible materials. Use good housekeeping practices to prevent accumulations of dust. Use the smallest amounts possible for the purpose, in designated areas with adequate ventilation. Avoid generating dusts. Avoid all contact and inhalation. Keep containers closed when not in use. Wash thoroughly after working with this product.

Storage Requirements: Store in suitable, labelled containers, in a cool, dry, well ventilated area, away from sources of heat and ignition. Keep containers tightly closed when not in use and when empty. Protect from damage.

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. If irritation persists, get medical attention.

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

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

Ingestion: If victim is alert and NOT convulsing, give 1 to 2 glasses of water to drink to dilute material. Do not induce vomiting. If discomfort occurs, or if a large amount has been ingested, obtain medical attention.

REFERENCES USED

CCINFO disc: MSDS's, March 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: March 2001

Revision: March 2010

MSDS: 2490-5

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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