

MATERIAL SAFETY DATA SHEET**TARTARIC ACID**

PRODUCT CODE NUMBER(S): 8760-1

PRODUCT IDENTIFICATION

Chemical Name and Synonyms: (+)Tartaric acid;
Racemic acid
Chemical Family: Dicarboxylic acid
Chemical Formula: (CHOHCOOH)₂
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.
(+)Tartaric acid	99	Not established	87-69-4

PHYSICAL DATA

Physical State: Solid
Odour and Appearance: White crystalline powder or granules. Odourless
Odour Threshold (ppm): Not applicable
Vapour Pressure (mm Hg): Negligible
Vapour Density (Air = 1): 65.7 (fine granules); 38.6 (powder)
Evaporation Rate: Not applicable
Boiling Point (degrees C): Not available
Melting Point (degrees C): 168°C (decomposes)
pH: 1.6 (100 g/L H₂O)
Specific Gravity: 1.76
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 violently with silver, with reactive metals, bases, oxidizing agents, reducing agents. May release flammable/explosive hydrogen gas on contact with metals such as aluminum, tin, zinc, lead.
Reactivity: Avoid excessive heat, sparks, flame, moisture, foreign material, all incompatible materials, generation of dust.

Hazardous Decomposition Products: CO_x, flammable/explosive hydrogen gas.

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.

Unusual Fire and Explosion Hazards: Extinguish all nearby sources of ignition. As with most organic solids, fire is possible at elevated temperatures or in contact with ignition sources.

Flash Point (Method Used): 210°C (OC)

Autoignition Temperature: 425°C

Upper Flammable Limit (% by volume): Not available

Lower Flammable Limit (% by volume): Not available

Hazardous Combustion Products: CO_x, flammable/explosive hydrogen gas.

Sensitivity to Impact: None

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, rabbit) 5,000 mg/kg; (iv, mouse) 485 mg/kg

LC₅₀: Not available

Effects of Acute Exposure to Product:

Toxic by intravenous injection in animal testing. Non-toxic orally.

Inhaled: May be mildly irritating to upper respiratory tract, causing sore throat, coughing, shortness of breath. Inhalation of large amounts may be harmful.

In contact with skin: May cause mild mechanical irritation.

In contact with eyes: May cause mild mechanical irritation.

Ingested: Non-toxic by oral ingestion. Large amounts may be irritating to gastrointestinal tract, causing nausea, vomiting, abdominal pain and diarrhea.

Effects of Chronic Exposure to Product:

No chronic health effects expected from this product.

Carcinogenicity: Not considered carcinogenic by NTP, IARC, OSHA.

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Teratogenicity: No information available**Reproductive Effects:** No information available**Mutagenicity:** No information available**Synergistic Products:** None known**Ingestion:** If victim is alert and NOT convulsing, rinse mouth, give several glasses of water to drink to dilute. If discomfort occurs, or if a large amount has been ingested, get medical attention.

PREVENTIVE MEASURES

Engineering Controls: Local exhaust recommended.**Respiratory Protection:** Dust/mist mask. For conditions where dust or mist is present, to the maximum use specified by the respirator supplier, NIOSH approved half-face high-efficiency dust/mist filter respirator, or NIOSH approved full face-piece high-efficiency dust/mist filter respirator. Higher or unknown concentrations, or for fire or spill conditions, self-contained breathing apparatus, or full face-piece, positive-pressure supplied-air respirator.**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:** Safety shower and eye-wash fountain in work area.**Leak and Spill Procedure:** Ventilate area. Eliminate sources of ignition. Cleanup personnel should be trained in the handling of hazardous chemicals and should wear protective equipment and clothing sufficient to prevent inhalation of dust, mist or fumes, and contact with skin and eyes. Prevent from entering sewers or waterways. Collect in a manner that does not raise dust (wet if necessary), transfer carefully into container, and arrange removal by disposal company. Wash site of spillage thoroughly with water and detergent.**Waste Disposal:** Follow all federal, provincial and local regulations for disposal.**Handling Procedures and Equipment:** COMBUSTIBLE DUST. Workers using this chemical must be properly trained in its hazards and its safe use, and must wear appropriate protective equipment and clothing. Avoid generating dust. If there is dust, keep away from heat, sparks, and all sources of ignition; avoid the accumulation of static charge, use anti-sparking tools and ground and bond equipment and containers. Use the smallest amount possible for the purpose, in a designated area with adequate ventilation. Use good housekeeping to prevent accumulations of dust. Avoid contact with skin and eyes. Avoid inhalation. Wash thoroughly after handling.**Storage Requirements:** Store in suitable, labelled containers, in a cool, dry, well ventilated area, away from all ignition sources and incompatible materials. 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. 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. If irritation develops get medical attention.**Inhalation:** Remove to fresh air. Give oxygen and get medical attention for any breathing difficulty.

REFERENCES USED

CCINFO disc

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

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

Suppliers' Material Safety Data Sheets

ADDITIONAL INFORMATION

Date Issued: February 20, 1990**Revision:** March 2011**MSDS:** 8760-1**Proposed Whmis Designation:** D2B

Prepared by: Caledon Laboratories Ltd. (905) 877-0101
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