

MATERIAL SAFETY DATA SHEET**ETHYLENEDIAMINETETRAACETIC ACID**

PRODUCT CODE NUMBER(S): 3460-1, 3463-1, 3465-1, 3466-5

PRODUCT IDENTIFICATION**Chemical Name and Synonyms:***Ethylenediaminetetraacetic acid, disodium salt; Sodium EDTA OR Ethylenediaminetetraacetic acid, free acid***Chemical Family:** *Iminoacetic acid***Chemical Formula:** *C₁₀H₁₄N₂O₈Na₂·2H₂O OR C₁₀H₁₆N₂O₈***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**

| <i>Ingredients</i> | <i>%</i> | <i>TLV Units</i> | <i>CAS No.</i> |
|--|-----------|------------------------|------------------|
| <i>Ethylenediamine tetraacetic acid, sodium salt</i> | <i>99</i> | <i>Not established</i> | <i>6381-92-6</i> |
| <i>OR</i> | | | |
| <i>Ethylenediamine tetraacetic acid, free acid</i> | <i>99</i> | <i>Not established</i> | <i>60-00-4</i> |

PHYSICAL DATA**Physical State:** *Solid***Odour and Appearance:** *White, odorless crystals***Odour Threshold (ppm):** *Not applicable***Vapour Pressure (mm Hg):** *0.01 mm Hg @ 20°C***Vapour Density (Air = 1):** *Not available***Evaporation Rate:** *Not available***Boiling Point (°C):** *Not available***Melting Point (°C):** *248°C (decomposes)***pH:** *4 to 5 (5%, aqueous, 20°C)***Specific Gravity:** *0.8***Coefficient of Water/Oil distribution:** *More soluble in water***SHIPPING DESCRIPTION****UN:** *Not regulated***T.D.G. Class:** *Not regulated***Pkg. Group:** *Not regulated***REACTIVITY DATA****Chemical Stability:** *Stable under normal conditions of use and storage.***Incompatibility with other substances:** *Aluminum reacts with aqueous solutions to release hydrogen. Avoid strong oxidizing agents, strong acids and reactive metals.***Reactivity:** *May decompose on exposure to heat. Avoid excessive heat, ignition sources, generation of dust, incompatible materials.***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:** *Use extinguishing media appropriate to the surrounding material that is burning. 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:** *CO_x, NO_x***Sensitivity to Impact:** *None identified***Sensitivity to Static discharge:** *Fine dust dispersed in air in sufficient concentrations and, in the presence of an ignition source is a potential dust explosion hazard.***TOXICOLOGICAL PROPERTIES AND HEALTH DATA****Toxicological Data:***To the best of our knowledge, the physical, chemical and toxicological properties of this substance have not yet been thoroughly investigated.***LD₅₀:** *(oral, rat), 2 gm/kg; (oral, mouse) 2.050 mg/kg***LC₅₀:** *Not available***Effects of Acute Exposure to Product:****Inhaled:** *May cause mucous membrane irritation, with coughing, sneezing, shortness of breath.***In contact with skin:** *Dusts or solutions may cause mild irritation. Risk of absorption is slight.***In contact with eyes:** *Dusts or solutions are moderately irritating to eyes, causing temporary redness, tearing, and pain.***Ingested:** *May cause irritation of the gastrointestinal tract. Ingestion of large quantities can cause hypocalcemic tetany.***Effects of Chronic Exposure to Product:****Carcinogenicity:** *No information available***Teratogenicity:** *No information available*

CODE: 3460-1, 3463-1, 3465-1, 3466-5

Reproductive Effects: *No information available*

Mutagenicity: *No information available*

Synergistic Products: *None known*

PREVENTIVE MEASURES

Engineering Controls: *Local exhaust recommended.*

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

Eye Protection: *Safety glasses*

Skin Protection: *Rubber or plastic gloves. Other protective clothing, lab coat, sleeves, as appropriate to prevent contact.*

Other Personal Protective Equipment: *Safety shower and eyewash fountain in work area.*

Leak and Spill Procedure: *Ventilate area of spill. Clean-up personnel must be thoroughly trained in the handling of hazardous materials, and must wear protective equipment and clothing sufficient to prevent inhalation of dust or fumes, and contact with skin and eyes. Prevent from entering sewers or waterways. Gather up in a manner that does not generate dust, and collect in suitable containers for reclamation or disposal.*

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

Handling Procedures and Equipment: *Workers must be thoroughly trained in the hazards of this substance and its safe use. Handle as a 1% caustic powder. Do not store in contact with aluminum or copper. Use routine safe handling procedures. Use the smallest amount possible for the purpose, in a designated area with adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid breathing dust. Wash thoroughly after handling.*

Storage Requirements: *Keep in suitable, labelled containers, in a cool, dry, ventilated area, out of direct sunlight, and away from incompatible materials. Do not store in contact with aluminum or copper. Protect against physical damage. Keep tightly closed.*

FIRST AID MEASURES

Specific Measures:

Eyes: *Wash 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 persists.*

Skin: *Remove contaminated clothing. Brush or wipe off dry material. Wash skin with plenty of running water for five to ten (5-10) minutes, or until no trace of chemical remains. Get medical advice if irritation persists.*

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

Ingestion: *If casualty is alert and not convulsing, rinse mouth thoroughly with water and give 2 to 4 glasses of water to dilute. Do not induce vomiting. If victim feels, unwell, or if a large amount has been ingested, get medical advice.*

REFERENCES USED

CCINFO disc: CCINFO

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 14, 1989*

Revision: *October 2011*

MSDS: *3460-1, 3463-1, 3465-1, 3466-5*

Proposed WHMIS Designation: *D2B (irritation)*

*Prepared by: Caledon Laboratories Ltd. (905) 877-0101
Caledon Laboratories Ltd. believes the information contained herein is reliable and accurate. Caledon makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such information is solely for your consideration, investigation, and verification.*