



10-0495
10/30/17

SAFETY DATA SHEET

Preparation Date: 7/24/2015

Revision Date: 7/24/2015

Revision Number: G1

Product code: E1047

Product Name: ETHYLENEDIAMINETETRAACETIC ACID TETRASODIUM SALT, DIHYDRATE, REAGENT

Other means of identification

Synonyms:

EDTA 4Na Dihydrate
Tetrasodium Ethylenediaminetetraacetate Dihydrate/ Tetrasodium EDTA Dihydrate
Ethylenediaminetetraacetate Tetrasodium Salt Dihydrate/EDTA Tetrasodium Salt
Dihydrate

Tetrasodium salt of Ethylenediaminetetraacetic acid, dihydrate
N,N' Ethylenediaminediacetic acid tetrasodium salt

Ethanol tetrasodium dihydrate

Sodium EDTA dihydrate

Edetate sodium dihydrate

10378-23-1

Not available

Not available

CAS #:
RTCS #
CI#:

Recommended use of the chemical and restrictions on use

Recommended use:
Uses advised against

Manufacture of substances, laboratory chemicals, Research and Development.
No information available

Supplier:

Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248

(310) 516-8000

Order Online At: <https://www.spectrumchemical.com>

Emergency telephone number

Contact Person:

Chemtec 1-800-424-9300
Martin Labenz (West Coast)
Ibad Tirmiz (East Coast)

Contact Person:

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation

Category 2B

Label elements

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Warning

Hazard statements
Causes eye irritation

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
May be harmful if swallowed

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret *
Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate 10378-23-1	10378-23-1	100	

4. FIRST AID MEASURES

First aid measures

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (1 3 1 26)

Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops. Consult a physician if necessary.

Eye Contact:

Flush eye with water for 15 minutes. Get medical attention. If symptoms persist, call a physician.

Inhalation:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Mild eye irritation. Mild skin irritation. May cause irritation of respiratory tract. Health injuries are not known or expected under normal use.

Indication of any immediate medical attention and special treatment needed
Treat symptomatically

Notes to Physician:

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

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Technical Measures/Precautions:
 Provide sufficient air exchange and/or exhaust in work rooms. Keep away from open flames, hot surfaces and sources of ignition.
Safe Handling Advice
 Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Use only in well-ventilated areas. Do not breathe vapours/dust. Do not ingest. Keep away from sources of ignition - no smoking. Handle in accordance with good industrial hygiene and safety practice.

Precautions for safe handling

7. HANDLING AND STORAGE

Methods for containment
 Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.
Methods for cleaning up
 Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

Methods and material for containment and cleaning up
 Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not let this chemical enter the environment.
Environmental precautions
 Ensure adequate ventilation. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Remove all sources of ignition.
 Personal Precautions:

Personal precautions, protective equipment and emergency procedures

6. ACCIDENTAL RELEASE MEASURES

Specific Methods:
 No information available.
Special Protective Equipment for Firefighters:
 As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Special Protective Actions for Firefighters

Specific hazards:
 Carbon oxides, nitrogen oxides, sodium oxides
 May be combustible at high temperatures
 Fire may produce irritating and/or toxic gases

Hazardous Combustion Products:

Specific hazards arising from the chemical

Unsuitable Extinguishing Media:
 Do not use a solid (straight) water stream as it may scatter and spread fire.

Extinguishing Media
 Suitable Extinguishing Media:
 Dry chemical. Carbon dioxide (CO2). Water, spray, mist, or foam.

5. FIRE-FIGHTING MEASURES

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
 Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:
 Strong oxidizing agents. Strong acids. Metals. Aluminum. Copper. Copper alloys. Zinc. Nickel.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate 10378-23-1	None	None	None	None

Canada

Components	Alberta	British Columbia	Ontario	Quebec
Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate 10378-23-1	None	None	None	None

Australia and Mexico

Components	Australia	Mexico
Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate 10378-23-1	None	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation, especially in confined areas. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. In case of insufficient ventilation wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection:

Goggles or Safety glasses with side-shields

Skin and body protection:

Long sleeved clothing. Chemical resistant apron. Gloves.

Respiratory protection:

Wear respirator with dust filter.. or. Effective dust mask.

Hygiene measures:

Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

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 ACID TETRASODIUM SALT,
 DIHYDRATE, REAGENT

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid.

Appearance: Crystalline solid.

Color: White.

Odor: No information available

Taste: No information available

Molecular/Formula weight: 416.23 g/mol

Formula: C10H12N2O8Na4.2H2O

Flammability: No information available

Flash point (°C): No data available

Flashpoint (°C/F): No information available.

Flash Point Tested according to: Not available

Lower Explosion Limit (%): No information available

Upper Explosion Limit (%): No information available

Autoignition Temperature (°C/F): No information available

pH: 11.3 (1%)

Melting point/range(°C/F): 300°C/572°F

Boiling point/range(°C/F): No information available

Decomposition temperature(°C/F): No information available

Bulk density: 0.77

Specific gravity: No information available

Vapor pressure @ 20°C (kPa): No information available

Density (g/cm3): 0.71

Evaporation rate: No information available

Vapor density: No information available

VOC content (g/L): No information available

Odor threshold (ppm): No information available

Partition coefficient (n-octanol/water): log Pow 5.01

Viscosity: No information available

Miscibility: No information available

Solubility: Soluble in Water

Reactivity

Reactive with strong oxidizing agents
Reactive with strong acids
Reactive with metals

Chemical stability

Stable under recommended storage conditions

Possibility of Hazardous Reactions:

Hazardous polymerization does not occur

Conditions to avoid:

Heat. Keep away from open flames, hot surfaces and sources of ignition.
Incompatible materials.

Incompatible Materials:

Strong oxidizing agents. Strong acids. Metals. Aluminum. Copper. Copper alloys.
Zinc. Nickel.

Hazardous decomposition products:

Carbon oxides. Nitrogen oxides (NOx). Sodium oxides.

Other Information

Corrosivity:

No information available

Special Remarks on Corrosivity:

No information available

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1.1. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Ingestion, Eyes.

Acute Toxicity

Component Information

Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate - 10378-23-1

LD50/oral/rat = No information available
 LD50/oral/mouse = No information available
 LD50/dermal/rat = No information available
 LD50/dermal/rabbit = No information available
 LC50/inhalation/rat = No information available
 LC50/inhalation/mouse = No information available
 Other LD50 or LC50 information = >2000 mg/kg oral LD50 rat (for anhydrous form CAS no. 64-02-8)(From EU Commission IUCLID dataset)
 1658 mg/kg oral LD50 rat (for anhydrous form CAS no. 64-02-8) (RTECS)
 1658-4500 mg/kg LD50 rat (for anhydrous form CAS no. 64-02-8)(from EU Commission IUCLID dataset)

Product Information

LD50/oral/rat =
 VALUE - Acute Tox Oral = >2000mg/kg
 LD50/oral/mouse =
 Value - Acute Tox Oral = No information available
 LD50/dermal/rabbit
 VALUE-Acute Tox Dermal = No information available
 LD50/dermal/rat
 VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
 VALUE-Vapor = No information available
 VALUE-Gas = No information available
 VALUE-Dust/Mist = No information available
 LC50/inhalation/mouse
 VALUE-Vapor = No information available
 VALUE-Gas = No information available
 VALUE-Dust/Mist = No information available

LC50/inhalation/mouse
 VALUE-Vapor = No information available
 VALUE-Gas = No information available
 VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: It may cause mild skin irritation.
Eye Contact: Causes eye irritation. Mild eye irritation. Eye contact may result in redness or pain.
Inhalation: May cause respiratory tract irritation.

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Ingestion

May be harmful if swallowed. Health injuries are not known or expected under normal use.

Aspiration hazard

No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity

No information available

Sensitization:

No information available

Mutagenic Effects:

No information available

Carcinogenic effects:

Not considered carcinogenic

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Substances	Australia - Notifiable Carcinogenic Substances
Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Reproductive toxicity

No data is available

Reproductive Effects:

No information available

Developmental Effects:

No information available

Teratogenic Effects:

No information available

Specific Target Organ Toxicity

STOT - single exposure

No information available

STOT - repeated exposure

No information available

Target Organs:

No information available

Ecotoxicity

Ecotoxicity effects:

Aquatic environment.

Freshwater Fish Species Data:

760 mg/L LC50 Bull gill sunfish 96h
59.8 mg/L LC50 Fathead Minnow 96h

Persistence and degradability:

No information available

Bioaccumulative potential:

No information available

Mobility:

No information available

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Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal. Do not reuse container. Dispose of as unused product.

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate	None	None	None	None

DOT

UN-No: Not Regulated

Proper Shipping Name: No information available

Hazard Class: No information available

Subsidiary Risk: No information available

Packing Group: None

ERG No: No information available

Marine Pollutant: No data available

DOT RQ (lbs): No information available

TDG (Canada)

UN-No: Not Regulated

Proper Shipping Name: No information available

Hazard Class: No information available

Subsidiary Risk: No information available

Packing Group: No information available

Description: No information available

ADR

UN-No: Not Regulated

Proper Shipping Name: No information available

Hazard Class: No information available

Packing Group: No information available

Subsidiary Risk: No information available

Classification Code: No information available

Description: No information available

CEFC Tremcard No: No information available

IMO / IMDG

UN-No: Not Regulated

Proper Shipping Name: No information available

Hazard Class: No information available

Subsidiary Risk: No information available

Packing Group: No information available

Description: No information available

Product code: E1047

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13. DISPOSAL CONSIDERATIONS

14. TRANSPORT INFORMATION

14. TRANSPORT INFORMATION

IMDG Page: No information available
 Marine Pollutant: No information available
 MFAG: No information available
 Maximum Quantity: No information available

RID

UN-No: Not Regulated
 Proper Shipping Name: No information available
 Hazard Class: No information available
 Subsidiary Risk: No information available
 Packing Group: No information available
 Classification Code: No information available
 Description: No information available

ICAO

UN-No: Not Regulated
 Proper Shipping Name: No information available
 Hazard Class: No information available
 Subsidiary Risk: No information available
 Packing Group: No information available
 Description: No information available

IATA

UN-No: Not Regulated
 Proper Shipping Name: No information available
 Hazard Class: No information available
 Subsidiary Risk: No information available
 Packing Group: No information available
 Description: No information available

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate	Not Listed	Not present	Present	Not present	Present	Present	Not present

U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:
 This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
 This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity
Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

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Components	Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate	Classification	No information	Safety Phrases
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S-phrase(s)
 S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S46 - If swallowed, seek medical advice immediately and show this container or label.
 S39 - Wear eye/face protection.

R-phrase(s)
 R22 - Harmful if swallowed.
 R36 - Irritating to eyes.

EU Classification

Components	Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate	CEPA Schedule 1 - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
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Components	Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate	Canada (DSL)	Canada (NDSL)
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Inventory

Canada Controlled Products Regulation:
 This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate
 D2B

WHMIS hazard class:
 D2B Toxic materials

Canada

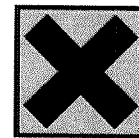
Components	Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) - Health and Safety Reporting
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U.S. TSCA

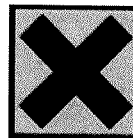
Components	Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Chemical Category	Section 313 - Reporting <i>de minimis</i>
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The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:
Xn - Harmful.
Xi - Irritant.



Xn



Xi

16. OTHER INFORMATION

Preparation Date: 7/24/2015
Revision Date: 7/24/2015
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet

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