



# Safety Data Sheet

## Section 01 - Identification

<b>Product Identifier</b>	Tetrasodium Ethylenediaminetetraacetate
<b>Other Means of Identification</b>	Edetate sodium, N,N'-1,2-Ethanediybis (N-(carbodomethyl)glycine), tetrasodium salt, sodium edetate, Tetrasodium EDTA, Tetrasodium edetate, (Ethylenedinitrilo)tetraacetic acid tetrasodium salt, Ethylenediaminetetraacetic acid, tetrasodium salt, Ethylenebis (iminodiacetic acid) tetrasodium salt, Tetrasodium (ethylenedinitrilo) tetraacetate, Na <sub>4</sub> EDTA, Tetrasodium ethylenediaminetetraacetate tetrahydrate.
<b>Product Use and Restrictions on Use</b>	Chelating agent, sequestering agent, and cleaning the boilers in large scale power plants.
<b>Initial Supplier Identifier</b>	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
<b>Prepared By</b>	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
<b>24-Hour Emergency Phone</b>	Phone: 1 (306) 664 – 2522

## Section 02 - Hazard Identification

### GHS-Classification

<b>Acute Toxicity-Oral</b>	Category 4
<b>Serious Eye Damage/Irritation</b>	Category 1

### Physical Hazards

No known physical hazards.

### **Danger**

### **Hazards Statements**

H302 – Harmful if swallowed.  
H318 – Causes serious eye damage.

### **Pictograms**



### **Precautionary Statements**

P264 – Wash hands thoroughly after handling.  
P270 – Do not eat, drink or smoke when using this product.  
P301 + P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330 – Rinse mouth.

P280 – Wear eye protection and face protection.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 – Immediately call a POISON CENTER or doctor/physician.

P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

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## Section 03 - Composition / Information on Ingredients

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Chemical Name	CAS Number	Weight %	Unique Identifiers
Tetrasodium Ethylenediaminetetraacetate	64-02-8	≥ 99%	

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## Section 04 - First Aid Measures

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<b>Inhalation</b>	If symptoms are experienced, remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention.
<b>Skin Contact / Absorption</b>	Remove contaminated clothing and rinse skin with lukewarm, gently flowing water for 30 minutes. If irritation occurs or persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.
<b>Eye Contact</b>	Immediately flush eye(s) with lukewarm, gently flowing water for 30 minutes while forcibly holding the eyelids open to ensure complete irrigation of the eye tissue. If a contact lens is present, remove only if easy to do so. Seek immediate medical attention.
<b>Ingestion</b>	Induce vomiting immediately as directed by medical personnel. Never give anything by mouth if the victim is rapidly losing consciousness, is unconscious or convulsing. Seek immediate medical attention.
<b>Additional Information</b>	Not Available

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## Section 05 - Fire Fighting Measures

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<b>Suitable Extinguishing Media</b>	Use extinguishing agent suitable for surrounding fire.
<b>Unsuitable Extinguishing Media</b>	Not Available
<b>Specific Hazards Arising From the Chemical</b>	Carbon monoxide, carbon dioxide, and toxic oxides of nitrogen and sodium may form in a fire. Tetrasodium EDTA will decompose when exposed to a fire or excessive heat, causing a rapid build-up of pressure inside closed containers. Containers may rupture explosively.
<b>Special Protective Equipment and Precautions for Fire-Fighters</b>	Wear NIOSH-approved self-contained breathing apparatus and protective gear.
<b>Further Information</b>	Not Available

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## Section 06 - Accidental Release Measures

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<b>Personal Precautions / Protective Equipment / Emergency Procedures</b>	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.
<b>Environmental Precautions</b>	Prevent product from entering sewers or waterways.
<b>Methods and Materials for Containment and Cleaning Up</b>	Clean up spill with non-reactive absorbent and place in suitable, labelled containers for proper disposal.

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## Section 07 - Handling and Storage

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<b>Precautions for Safe Handling</b>	Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure. Minimize dust generation and exposure.
<b>Conditions for Safe Storage</b>	Store in a cool, well-ventilated area away from heat, sparks and incompatible materials. Keep container tightly closed and dry. Do not allow smoking and food consumption while handling.
<b>Incompatibilities</b>	Strong oxidizing agents and strong bases.

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## Section 08 - Exposure Controls and Personal Protection

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### Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Tetrasodium Ethylenediaminetetraacetate	Not Established		

### Engineering Control(s)

**Ventilation Requirements** Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.

**Other** Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

### Protective Equipment

**Eyes/Face** Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.

**Hand Protection** Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

**Skin and Body Protection** Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.  
Impervious boots of chemically resistant material should be worn at all times. No special footwear is required other than what is mandated at place of work.

**Respiratory Protection** If exposure limit are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplier air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Thermal Hazards** Not Available

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## Section 09 - Physical and Chemical Properties

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### Appearance

**Physical State** Solid, powder

**Colour** White

**Odour** Odourless

<b>Odour Threshold</b>	Not Applicable
<b><u>Property</u></b>	
<b>pH</b>	10.5-11.5 (1% wt)
<b>Melting Point/Freezing Point</b>	Not Applicable (decomposes)
<b>Initial Boiling Point and Boiling Range</b>	Not Applicable (decomposes)
<b>Flash Point</b>	>100°C (212°F)
<b>Evaporation Rate</b>	Negligible
<b>Flammability</b>	Not combustible, but can probably burn if strongly heated.
<b>Upper Flammable Limit</b>	Not Available
<b>Lower Flammable Limit</b>	Not Available
<b>Vapour Pressure (mm Hg, 20°C)</b>	Very low
<b>Vapour Density (Air=1)</b>	Not Applicable
<b>Relative Density</b>	Not Available
<b>Solubility(ies)</b>	Soluble in water. Insoluble in most common organic solvents.
<b>Partition Coefficient: n-octanol/water</b>	Log P <sub>ow</sub> = -13.17
<b>Auto-ignition Temperature</b>	>200°C (392°F)
<b>Decomposition Temperature</b>	Gradually loses the water of crystallization at high temperatures.
<b>Viscosity</b>	Not Applicable
<b>Explosive Properties</b>	Not Available
<b>Specific Gravity (Water=1)</b>	Not Available
<b>% Volatiles by Volume</b>	Not Available
<b>Formula</b>	C <sub>10</sub> H <sub>12</sub> N <sub>2</sub> O <sub>8</sub> Na·4H <sub>2</sub> O
<b>Molecular Weight</b>	452.2

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## **Section 10 - Stability and Reactivity**

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<b>Reactivity</b>	Not Available
<b>Stability</b>	Stable under normal storage conditions.
<b>Possibility of Hazardous Reactions</b>	Hazardous polymerization will not occur.
<b>Conditions to Avoid</b>	Heat, sparks, open flames.

**Incompatible Materials** Strong oxidizing agents and strong bases.

**Hazardous Decomposition Products** Carbon oxides and nitrogen oxides.

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## Section 11 - Toxicological Information

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### Acute Toxicity

Component	Oral LD <sub>50</sub>	Dermal LD <sub>50</sub>	Inhalation LC <sub>50</sub>
Tetrasodium Ethylenediaminetetraacetate	1,658 mg/kg (rat)	Not Available	Not Available

### Chronic Toxicity – Carcinogenicity

Component	IARC
Tetrasodium Ethylenediaminetetraacetate	Not Available

**Skin Corrosion/Irritation** Causes mild skin irritation.

**Ingestion** Harmful if swallowed. May cause gastrointestinal discomfort, nausea, vomiting and diarrhea.

**Inhalation** Formation of dust may cause irritation to the respiratory tract.

**Serious Eye Damage/Irritation** Can cause serious eye damage.

**Respiratory or Skin Sensitization** Not Available

**Germ Cell Mutagenicity** Not Available

**Reproductive Toxicity** Not Available

**STOT-Single Exposure** Not Available

**STOT-Repeated Exposure** Not Available

**Aspiration Hazard** Not Available

**Synergistic Materials** Not Available

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## Section 12 – Ecological Information

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### Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Tetrasodium Ethylenediaminetetraacetate	Not Available	LC <sub>50</sub> (Lepomis macrochirus, 96hr): 486 mg/L	LC <sub>50</sub> (Daphnia magna, 24hr): 625 mg/L
<b>Biodegradability</b>	Not Available		
<b>Bioaccumulation</b>	Not Available		
<b>Mobility</b>	Not Available		
<b>Other Adverse Effects</b>	Not Available		

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## Section 13 – Disposal Considerations

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**Waste From Residues/Unused Products** Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

**Contaminated Packaging** Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

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## Section 14 – Transport Information

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UN Number	Not Regulated
UN Proper Shipping Name	Not Regulated
Transport Hazard Class(es)	Not Regulated
Packaging Group	Not Regulated
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special Precautions	Not Available
Transport in Bulk	Not Available

### TDG

**Other** Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

**TDG PRODUCT CLASSIFICATION:** This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

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## Section 15 – Regulatory Information

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**NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.**

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## Section 16 – Other Information

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**Preparation Date** April 5, 2016

**Note:** The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

### **Attention: Receiver of the chemical goods / SDS coordinator**

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution<sup>®</sup> initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

### **References:**

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA

### **ClearTech Industries Inc. - Locations**

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