



Safety Data Sheet

Section 01 Identification

Product Identifier	Trisodium Citrate Dihydrate
Other Means of Identification	Sodium citrate; Citric acid trisodium salt
Product Use and Restrictions on Use	Chelating agent, preservative, antioxidant, buffering agent.
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7 Phone: 800.387.7503 Fax: 888.281.8109 www.cleartech.ca
Prepared By	ClearTech Industries Inc. technical writer
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Section 02 Hazard Identification

GHS-Classification

This product has been assessed in accordance with the Hazardous Products Regulations and is not classified as a hazardous substance or mixture.

Section 03 Composition / Information on Ingredients

Hazardous ingredients:

Chemical name	Common name(s)	CAS number	Concentration (w/w%)
Trisodium Citrate Dihydrate		6132-04-3	>99%

Section 04 First-Aid Measures

Description of necessary first-aid measures

Inhalation	Get medical advice / attention if you feel unwell or are concerned.
Ingestion	Get medical advice / attention if you feel unwell or are concerned.
Skin contact	Rinse / wash with lukewarm, gently flowing water for 5 minutes or until product is removed. If skin irritation occurs or if you feel unwell: Get medical advice / attention.
Eye contact	Gently brush product off face. Do not rub eyes. Let the eyes water naturally for a few minutes. Look right and left, then up and down. If particle / dust does not come out, cautiously rinse eye with lukewarm gently flowing water for 5 minutes or until particle / dust is removed, while holding the eyelids open. If eye irritation persists: Get medical advice / attention. Do not attempt to manually remove anything from the eyes.

Most important symptoms and effects, both acute and delayed

Inhalation	Cough. Sore throat.
Ingestion	Not available
Skin contact	Redness
Eye contact	May cause eye irritation. Redness
Further information	For further information see Section 11 Toxicological Information.

Section 05 Fire Fighting Measures

Suitable extinguishing media	Extinguish fire using extinguishing agents suitable for the surrounding fire.
Unsuitable extinguishing media	Not available
Specific hazards arising from the chemical	Oxides of carbon and nitrogen may be emitted when heated.
Special protective equipment for fire-fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

Section 06 Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so.
Environmental Precautions	Prevent material from entering sewers or confined spaces. Notify local health and wildlife officials. Notify operators of nearby water intakes.
Methods and Materials for Containment and Cleaning Up	Dry sweeping is not recommended. Pre-dampening the material or use of a vacuum is preferred. Shovel into clean, dry, labelled containers and cover. Flush area with water. SMALL SPILLS: Clean up spill with non-reactive absorbent and place in suitable, covered, labeled containers. Flush area with water. Contaminated absorbent material may pose the same hazards as the spilled product. LARGE SPILLS: Contact fire and emergency services and supplier for advice.

Section 07 Handling and Storage

Precautions for Safe Handling	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. Avoid generating dust. Prevent the release of dust into the workplace air. Inspect containers for damage or leaks before handling. Label containers. Never return contaminated material to its original container. Have suitable emergency equipment for fires, spills and leaks readily available.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, out of direct sunlight and away from heat sources. Always store in original labelled container. Keep containers tightly closed when not in use and when empty. Protect label and keep it visible.

Incompatibilities Strong oxidizers

Section 08 Exposure Controls and Personal Protection

Exposure limits

There are no known exposure limits for this product.

Engineering controls

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 An eye wash bottle or eye wash station must be available, tested, and be in close proximity to the product being handled in accordance with provincial regulations.

Protective equipment

Eye and face protection No specific requirement, but it is good practice to wear chemical safety goggles.

Hand protection No specific requirement, but it is good practice to prevent skin contact.

Foot protection No special footwear is required other than what is mandated at place of work.

Skin and body protection No specific requirement beyond what is mandated at place of work.

Respiratory protection No specific guidelines are available. Where required, an approved respirator suitable for non-toxic dust may be adequate.

Thermal hazards Not available

Section 09 Physical and Chemical Properties

Appearance

Physical state Crystalline powder

Colour White

Odour Not available

Odour threshold Not available

Property

pH 7.5-9.0 @ 5 g/L

Melting point / freezing point 150°C

**Initial boiling point and
boiling range** Not available

Flash point Not available

Evaporation rate	Not available
Flammability	Not available
Upper flammable limit	Not available
Lower flammable limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	Not available
Solubility	Soluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Specific gravity	Not available
Formula	$\text{Na}_3\text{C}_6\text{H}_5\text{O}_7 \cdot 2\text{H}_2\text{O}$
Molecular weight	294.10 g/mol

Section 10 Stability and Reactivity

Reactivity	Can be oxidized by strong oxidizing agents. Will buffer acids.
Stability	Stable
Possibility of hazardous reactions	Not available
Conditions to avoid	Heat, sunlight and moisture
Incompatible materials	Strong oxidizers
Hazardous decomposition products	Oxides of nitrogen and carbon.

Section 11 Toxicological Information

Acute Toxicity (LD50 and LD50 values)

There is no available toxicity data for this product.

Toxic Health Effect Summary

Chemical Characteristics Will chelate calcium and other metals.

Skin	Not available
Ingestion	Not available
Inhalation	Cough, sore throat
Eye contact	Redness
Delayed and Chronic	Not available

Section 12 Ecological Information

Ecotoxicity

here is no available toxicity data for this product.

Biodegradability	Readily biodegradable
Bioaccumulation	Not expected to bioaccumulate
Mobility	Water soluble
Other adverse effects	Not available

Section 13 Disposal Considerations

Waste From Residues / Unused Products	Dispose in accordance with all federal, provincial, and local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Do not remove label, follow label warnings even after the container is empty. Empty containers should be recycled or disposed of at an approved waste handling facility.

Section 14 Transport Information

UN number	Not available
UN proper shipping name	Not available
Transport hazard class(es)	Not available
Packing group	Not available
Excepted quantities	Not available
Environmental hazards	Not available
Special precautions	Not available
Transport in bulk	Not available
Additional information	Secure containers (full 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 16 of this SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and published test data regarding the classification of this product are listed in the references at section 16 of this SDS.

Section 15 Regulatory Information

NOTE: THE PRODUCT LISTED ON THIS SAFETY DATA SHEET HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN HAZARDOUS PRODUCTS REGULATIONS. THIS SAFETY DATA SHEET CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

Section 16 Other Information

Date of latest revision: December 11, 2018

Note: The responsibility to provide a safe workplace remains with the buyer / user. The buyer / 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 buyer / user to comply with all applicable laws and regulations regarding handling, using, reselling and shipping this product.

Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the RDC Responsible Distribution® 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) TOXNET
- 3) eChemPortal
- 4) ECHA
- 5) Transportation of Dangerous Goods Canada
- 6) HSDB
- 7) PAN