



# Safety Data Sheet

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## Section 01 - Product And Company Identification

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Product Identifier	Trisodium Phosphate Dodecahydrate
Other Means of Identification	Sodium orthophosphate dodecahydrate
Product Use and Restrictions on Use	Industrial chemical, textiles, water treatment
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
Prepared By	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
24-Hour Emergency Phone	Phone: 1 (306) 664 – 2522

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## Section 02 - Hazard Identification

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### GHS-Classification

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Irritation	Category 2
STOT-Single Exposure	Category 3

### Physical Hazards

No known physical hazards.

### **Warning**

### **Hazard Statements**

H315 – Causes skin irritation.

H319 – Causes serious eye irritation.

H335 – May cause respiratory irritation.

### **Pictograms**



### **Precautionary Statements**

P403 + P233 – Store in a well-ventilated place. Keep container tightly closed.

P405 – Store locked up.

P271 – Use only outdoors or in a well-ventilated area.

P261 – Avoid breathing dust.

P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 – Call a POISON CENTER or doctor/physician if you feel unwell.  
P280 – Wear protective gloves, protective clothing, eye protection, and face protection.  
P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.  
P332 + P313 – If skin irritation occurs: Get medical advice/attention.  
P362 – Take off contaminated clothing and wash before reuse.  
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 – If eye irritation persists: Get medical advice/attention.  
P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

### Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Trisodium Phosphate, Anhydrous	7601-54-9	60-100%	

### Section 04 - First Aid Measures

Inhalation	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.
Skin Contact / Absorption	Remove contaminated clothing. Rinse skin with lukewarm, gently flowing water and non-abrasive soap. If irritation persists, seek medical attention. Wash contaminated clothing before re-use or discard.
Eye Contact	Rinse eyes cautiously with lukewarm, gently flowing water for at least 30 minutes. Forcibly hold eyelids open to ensure complete irrigation of the eye tissue. If irritation persists, seek medical attention.
Ingestion	Never give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim drink 2-4 cups of milk or water. DO NOT induce vomiting. Seek medical attention.
Additional Information	Not Available

### Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Extinguish fire using appropriate extinguishing media for the surrounding fire.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	The electrical conductivity of phosphates is probably high. Solutions can react with metals such as aluminum, zinc and galvanized iron to produce highly flammable hydrogen gas that may explode if ignited. During a fire, irritating/toxic phosphorus oxides may be generated. Closed containers may explode in the heat of a fire.
Special Protective Equipment and Precautions for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
Further Information	Not Available

### 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. Flush with water to remove any residue.
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<b>Environmental Precautions</b>	Prevent material entering sewers or confined spaces.
<b>Methods and Materials for Containment and Cleaning Up</b>	<p>SMALL SPILLS (solid): Shovel into clean, dry, labelled containers and cover. Flush area with water.</p> <p>SMALL SPILLS (liquid): Soak up spill with absorbent material which does not react with spilled material. Put material in suitable, covered, labelled containers. Flush area with water.</p> <p>LARGE SPILLS: Contact fire and emergency services and supplier for advice.</p>

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## Section 07 - Handling and Storage

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<b>Precautions for Safe Handling</b>	This material causes severe skin burns and eye damage. 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.
<b>Conditions for Safe Storage</b>	Store in a cool, dry, well-ventilated area. Keep containers tightly closed. Avoid any dust build-up by frequent cleaning and suitable construction of storage area.
<b>Incompatibilities</b>	Strong acids, metals such as aluminum, zinc and galvanized iron and magnesium.

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## Section 08 - Exposure Controls and Personal Protection

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### Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Trisodium phosphate dodecahydrate	WEELs	WEEL-STEL	5mg/m <sup>3</sup> (15 min)

### Engineering Control(s)

<b>Ventilation Requirements</b>	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.
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<b>Other</b>	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.
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### Protective Equipment

<b>Eyes/Face</b>	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.
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<b>Hand Protection</b>	Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.
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<b>Skin and Body Protection</b>	Body suite, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.
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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.

<b>Respiratory Protection</b>	NIOSH-approved respirator for dust should be worn, if needed.
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<b>Thermal Hazards</b>	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

**Odour Threshold** Not Applicable

### Property

**pH** 11.5-12 (1% solution)

**Melting Point/Freezing Point** 73.3-76.7°C

**Initial Boiling Point and Boiling Range** Does not boil

**Flash Point** Not Applicable

**Evaporation Rate** Not Applicable

**Flammability** Non-Flammable

**Upper Flammable Limit** Not Applicable

**Lower Flammable Limit** Not Applicable

**Vapour Pressure (mm Hg, 20°C)** Does not form a vapour

**Vapour Density (Air=1)** Not Applicable

**Relative Density** Not Available

**Solubility(ies)** Very soluble in water.  
Insoluble in ethanol, carbon disulfide.

**Partition Coefficient: n-octanol/water** Not Available

**Auto-ignition Temperature** Not Applicable

**Decomposition Temperature** Not Available

**Viscosity** Not Applicable

**Explosive Properties** Not Available

**Specific Gravity (Water=1)** 1.62

**% Volatiles by Volume** 0

**Formula**  $\text{Na}_3\text{PO}_4 \cdot 12\text{H}_2\text{O}$

**Molecular Weight** 380.13

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## Section 10 - Stability and Reactivity

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Reactivity	May react with air to form disodium phosphate and sodium carbonate.
Stability	Normally stable
Possibility of Hazardous Reactions	Polymerization will not occur.
Conditions to Avoid	Heat.
Incompatible Materials	Strong acids, metals such as aluminum, zinc and galvanized iron, and magnesium.
Hazardous Decomposition Products	None.

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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>
Trisodium phosphate	> 2,000mg/kg (rat)	≥ 2,000mg/kg (rabbit)	≥ 2.16mg/L (rat, 1hr)

### Chronic Toxicity – Carcinogenicity

Component	IARC
Trisodium phosphate dodecahydrate	Not listed as carcinogenic

Skin Corrosion/Irritation	Moderate to severe skin irritant. Capable of producing severe burns, blisters, ulcers and permanent scarring.
Ingestion	Not expected to be harmful if swallowed. Solutions may cause burns to the lips, tongue, throat, esophagus and stomach if ingested. Symptoms may include difficulty swallowing, intense thirst, nausea, vomiting, diarrhea, and in severe cases, collapse and death.
Inhalation	High airborne concentrations of dusts or mists from concentration solutions are probably severely irritating or corrosive. A severe exposure may result in a potentially fatal accumulation of fluid in the lungs.
Serious Eye Damage/Irritation	Corrosive to eyes.
Respiratory or Skin Sensitization	Not known to be a skin or respiratory sensitizer.
Germ Cell Mutagenicity	Not known to be a mutagen.
Reproductive Toxicity	Not known to cause reproductive toxicity.
STOT-Single Exposure	May cause respiratory irritation.
STOT-Repeated Exposure	Not Available
Aspiration Hazard	Severe inhalation exposure can result in pulmonary edema (a condition of fluid in the lungs), which can be fatal.
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
Trisodium phosphate dodecahydrate	Not Available	EC <sub>50</sub> (Gambusia affinis, 96hr): 28.5mg/L	Not Available

<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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<b>Waste From Residues/Unused Products</b>	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
<b>Contaminated Packaging</b>	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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<b>UN Number</b>	Not Regulated
<b>UN Proper Shipping Name</b>	Not Regulated
<b>Transport Hazard Class(es)</b>	Not Regulated
<b>Packaging Group</b>	Not Regulated
<b>Environmental Hazards</b>	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
<b>Special Precautions</b>	Not Available
<b>Transport in Bulk</b>	Not Available

### TDG

<b>Other</b>	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.
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**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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<b>Preparation Date</b>	March 29, 2015
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**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
- 7) PAN

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