



Safety Data Sheet

Section 01 - Identification

Product Identifier	Tetrapotassium Pyrophosphate
Other Means of Identification	TKPP
Product Use and Restrictions on Use	Anti-scaling agent
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

Section 02 - Hazard Identification

GHS-Classification

Serious Eye Damage/Irritation Category 2

Physical Hazards

No known physical hazards.

Warning

Hazards Statements

H319 – Causes serious eye irritation.

Pictograms



Precautionary Statements

P264 – Wash hands thoroughly after handling.

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.

P337 + P313 – If eye irritation persists: Get medical advice/attention.

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Tetrapotassium Pyrophosphate	7320-34-5	100%	

Section 04 - First Aid Measures

Inhalation	Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention.
Skin Contact / Absorption	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.
Eye Contact	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 irritation persists, seek medical attention.
Ingestion	If swallowed, do NOT induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head below hips to prevent aspiration of liquid into lungs. Seek medical attention if discomfort occurs.
Additional Information	<p>Notes to Physician: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Ingestion of large quantities of phosphate salts (> 1.0 gram for an adult) may cause an osmotic catharsis resulting in diarrhea and probable abdominal cramps. Larger doses such as 4-8 grams will almost certainly cause these effects in everyone. In healthy individuals most of the ingested salt will be excreted in the feces with the diarrhea and, thus not cause any systemic toxicity. Doses greater than 10 grams hypothetically may cause systemic toxicity. Treatment should take into consideration both anionic and cation portion of the molecule. The following treatments should be considered for the specific group(s) of phosphate salts found in the product:</p> <ul style="list-style-type: none">-All phosphate salts, except calcium salts, have a hypothetical risk of hypocalcemia, so calcium levels should be monitored.- Ammonium salts have a hypothetical risk of ammonia toxicity. In addition to calcium levels, ammonia and phosphate levels should be monitored.-Potassium salts have a hypothetical risk of hyperkalemia which can cause cardiac arrhythmia. In addition to calcium levels, potassium and phosphate levels should be monitored. Also consider continuous EKG monitoring to detect hyperkalemia.-Sodium salts have a hypothetical risk of hypernatremia. In addition to calcium levels, sodium and phosphate levels should be monitored.

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Product does not burn. Use extinguishing media appropriate for surrounding fire.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	Oxides of phosphorus and potassium may form in 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.
Environmental Precautions	Prevent materials from entering sewers.
Methods and Materials for Containment and Cleaning Up	Scoop up or vacuum up and place in an appropriate closed container. Avoid raising dust. DANGER! DUST EXPLOSION HAZARD! Flush area with water to remove trace residue. Decontaminate tools and equipment following cleanup.

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 contact with skin and eyes. Avoid formation of dust and aerosols.
Conditions for Safe Storage	Store in a cool, dry well ventilated place, away from heat and ignition sources to maintain product performance. Emptied container retains product residue. Keep container tightly closed and away from alkalis. Product is hygroscopic and can cake during storage.
Incompatibilities	Strong bases, strong oxidizing agents.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Tetrapotassium Pyrophosphate	Not Available		

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 suite, 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	Use a NIOSH approved dust respirator.

Thermal Hazards

Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State Solid crystals or powder

Colour White

Odour Odourless

Odour Threshold Not Applicable

Property

pH 10.0-10.8 (1% solution)

Melting Point/Freezing Point 1090°C

Initial Boiling Point and Boiling Range Decomposes

Flash Point Not Applicable

Evaporation Rate Not Available

Flammability Non-Flammable

Upper Flammable Limit Not Applicable

Lower Flammable Limit Not Applicable

Vapour Pressure (mm Hg, 20°C) Not Applicable

Vapour Density (Air=1) Not Available

Relative Density Not Available

Solubility(ies) Soluble in water

Partition Coefficient: n-octanol/water Not Available

Auto-ignition Temperature Not Applicable

Decomposition Temperature 220°C

Viscosity Not Applicable

Explosive Properties Fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard.

Specific Gravity (Water=1) 2.33

% Volatiles by Volume Not Available

Formula $K_4P_2O_7$

Molecular Weight 330.34 g/mol

Section 10 - Stability and Reactivity

Reactivity Not Available

Stability Stable under normal conditions.

Possibility of Hazardous Reactions Hazardous polymerization will not occur.

Conditions to Avoid Heat and moisture.

Incompatible Materials Strong bases, strong oxidizing agents.

Hazardous Decomposition Products Oxides of phosphorus.

Section 11 - Toxicological Information

Acute Toxicity

Component	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Tetrapotassium Pyrophosphate	2980 mg/kg (rat)	7940 mg/kg (rabbit)	Not Available

Chronic Toxicity – Carcinogenicity

Component	IARC
Tetrapotassium Pyrophosphate	Not listed as a carcinogen by IARC or ACGIH.

Skin Corrosion/Irritation Causes skin irritation.

Ingestion Low toxicity. May cause abdominal discomfort, nausea, vomiting and diarrhea.

Inhalation Dust may be irritating to the nose, throat, and respiratory tract. May also cause coughing and sneezing by inhalation of dust.

Serious Eye Damage/Irritation Causes severe eye irritation.

Respiratory or Skin Sensitization Did not cause sensitization on laboratory animals.

Germ Cell Mutagenicity Not Available

Reproductive Toxicity Not Available

STOT-Single Exposure May cause respiratory tract irritation.

STOT-Repeated Exposure Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation

Aspiration Hazard Not Available

Synergistic Materials Not Available

Section 12 – Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Tetrapotassium Pyrophosphate	Not Available	Not Available	Not Available

Biodegradability	Not Available
Bioaccumulation	Not Available
Mobility	Not Available
Other Adverse Effects	Not Available

Section 13 – Disposal Considerations

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.

Section 14 – Transport Information

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.

Section 15 – Regulatory Information

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.

Section 16 – Other Information

Preparation Date 2017 June 28

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[®] 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

Corporate Head Office: 1500 Quebec Avenue, Saskatoon, SK, S7K 1V7

Phone: 1(306) 664 – 2522

Fax: 1(888) 281-8109

www.cleartech.ca

24 Hour Emergency Number - All Locations – 1(306) 664-2522