



# Safety Data Sheet

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## Section 01 - Identification

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<b>Product Identifier</b>	ClearMem 4000
<b>Other Means of Identification</b>	HMDTMP.K6
<b>Product Use and Restrictions on Use</b>	Scale inhibitor for water treatment in boiler and RO membrane treatment
<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

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## Section 02 - Hazard Identification

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### GHS-Classification

<b>Skin Corrosion/Irritation</b>	Category 3
<b>Serious Eye Damage/Irritation</b>	Category 2A

### Physical Hazards

<b>Corrosive to Metals</b>	Category 1
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### **Warning**

### **Hazard Statement**

H316 - Causes mild skin irritation.  
H319 - Causes serious eye irritation.

### **Pictograms**



### **Precautionary Statements**

P264 - Wash hands thoroughly after handling.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332+313 - If skin irritation occurs, get medical advice/attention.  
P337+313 - If eye irritation persists, get medical advice/attention.

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## Section 03 - Composition / Information on Ingredients

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Chemical Name	CAS Number	Weight %	Unique Identifiers
Potassium salt of Hexamethylenediamine-tetra (methylenephosphonic acid)	38820-59-6(X-6) 53473-28 ( -26-K )	31 - 36	

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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. Rinse skin with lukewarm, gently flowing water. Seek medical attention if irritation occurs or persists. Completely decontaminate clothing, shoes and leather goods before reuse or discard.
<b>Eye Contact</b>	Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 30 minutes or until the chemical is removed, while holding the eyelid(s) open to ensure complete irrigation of the eye tissue. Seek immediate medical attention.
<b>Ingestion</b>	Never give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim rinse mouth with water. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Have victim rinse mouth again. Seek medical attention.

### Additional Information

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## Section 05 - Fire Fighting Measures

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<b>Suitable Extinguishing Media</b>	Use extinguishing media appropriate for surrounding fire.
<b>Unsuitable Extinguishing Media</b>	Not Available
<b>Specific Hazards Arising From the Chemical</b>	May evolve oxides of carbon and phosphorus under fire conditions.
<b>Special Protective Equipment for Fire-Fighters</b>	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
<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.
<b>Environmental Precautions</b>	Prevent material from entering sewers.
<b>Methods and Materials for Containment and Cleaning Up</b>	Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

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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.
<b>Conditions for Safe Storage</b>	Store the containers tightly closed. Store in suitable labelled containers. Avoid freezing temperatures

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## Section 08 - Exposure Controls and Personal Protection

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**Exposure Limit(s)**

Component	Regulation	Type of Listing	Value
Potassium salt of Hexamethylenediamine-tetra (methylenephosphonic acid)			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**

Respiratory protection is not normally needed. If airborne exposure will become excessive, then use approved respiratory protection with full face piece.

**Thermal Hazards**

Not Available

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## Section 09 - Physical and Chemical Properties

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**Appearance**

Physical State	Liquid
Colour	Clear, light yellow
Odour	Characteristic odour
Odour Threshold	Not available

**Property**

pH	6.0 - 8.0(1% Solution)
Melting Point/Freezing Point	-10 °C
Initial Boiling Point and Boiling Range	105 °C
Flash Point	Not Applicable
Evaporation Rate	Not Available

<b>Flammability</b>	Non-flammable
<b>Upper Flammable Limit</b>	Not Applicable
<b>Lower Flammable Limit</b>	Not Applicable
<b>Vapour Pressure (mm Hg, 20°C)</b>	Not Available
<b>Vapour Density (Air=1)</b>	Not Available
<b>Relative Density</b>	Not Available
<b>Solubility(ies)</b>	Soluble in water
<b>Partition Coefficient: n-octanol/water</b>	Not Available
<b>Auto-ignition Temperature</b>	Not Available
<b>Decomposition Temperature</b>	Not Available
<b>Viscosity</b>	< 100 CPS
<b>Explosive Properties</b>	Not Available
<b>Specific Gravity (Water=1)</b>	1.21 - 1.31 at 25 °C
<b>% Volatiles by Volume</b>	~61 % by weight
<b>Formula</b>	C <sub>10</sub> H <sub>22</sub> N <sub>2</sub> O <sub>12</sub> P <sub>4</sub> K <sub>6</sub>
<b>Molecular Weight</b>	721

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## Section 10 - Stability and Reactivity

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<b>Reactivity</b>	Not Available
<b>Stability</b>	Stable under normal conditions.
<b>Possibility of Hazardous Reactions</b>	Polymerization will not occur
<b>Conditions to Avoid</b>	No data available
<b>Incompatible Materials</b>	Strong oxidizing agents, Strong acids
<b>Hazardous Decomposition Products</b>	Carbon monoxide, Carbon dioxide, Nitrogen oxides, Phosphorous oxides.

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## Section 11 - Toxicological Information

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### Acute Toxicity

<b>Component</b>	<b>Oral LD<sub>50</sub></b>	<b>Dermal LD<sub>50</sub></b>	<b>LC<sub>50</sub></b>
Phosphonic acid, [1,6-hexanediylbis[nitrilobis(methylene)]]tetrakis-, potassium	10,000mg/kg (rat)	7940mg/kg (rabbit)	Not Available
Potassium chloride	2430mg/kg (rat)	Not Available	Not Available
Dipotassium phosphite	Not Available	Not Available	Not Available

## Chronic Toxicity – Carcinogenicity

Component	IARC
Phosphonic acid, [1,6-hexanediylbis[nitrilobis(methylene)]]tetrakis-, potassium	Not Available
Potassium chloride	Not known to be carcinogenic.
Dipotassium phosphite	Not Available
<b>Skin Corrosion/Irritation</b>	May be slightly irritating to skin and slightly toxic if absorbed through skin
<b>Ingestion</b>	Practically non-irritating.
<b>Inhalation</b>	Practically non-irritating.
<b>Serious Eye Damage/Irritation</b>	Practically non-irritating.
<b>Respiratory or Skin Sensitization</b>	Not Available.
<b>Germ Cell Mutagenicity</b>	No genetic effects were noted in stand bacterial tests.
<b>Reproductive Toxicity</b>	Rat, diet, 1 generation. Signs of generalized toxicity (reduced body weight and/or reduced weight gain) were observed in parental animals and offspring with no effect on fertility or reproduction.
<b>STOT-Single Exposure</b>	Not Available
<b>STOT-Repeated Exposure</b>	Not Available
<b>Aspiration Hazard</b>	Not Available
<b>Synergistic Materials</b>	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
Phosphonic acid, [1,6-hexanediylbis[nitrilobis(methylene)]]tetrakis-, potassium salt	EC <sub>50</sub> (96hrs, Selenastrum capricornutum): 28 mg/L	LC <sub>50</sub> (96 hrs, Ictalurus punctatus): >2400 mg/L	EC50 (48 hrs, Daphnia magna): >555 mg/L
Potassium chloride	Not Available	Not Available	Not Available
Dipotassium phosphite	Not Available	Not Available	Not Available
<b>Biodegradability</b>	The total of the organic components contained in the product is not classified as “readily biodegradable” (OECD-301 A-F). However, this product is expected to be inherently biodegradable.		
<b>Bioaccumulation</b>	Modified SCAS primary degradation 4.3%. River Die-Away theoretical CO2 evolution: 7.9% 60 d.		
<b>Mobility</b>	Accidental spillage may lead to penetration in the soil and groundwater. However, there is no evidence that this would cause adverse ecological effects.		
<b>Other Adverse Effects</b>	Do not empty into drains, sewers or any other water ways.		

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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 1, Column 10.
<b>Special Precautions</b>	Not Available
<b>Transport in Bulk</b>	Not Available
<b>Additional Information</b>	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**

**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) CHRIS
- 6) HSDB
- 7) ECHA

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

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