



Safety Data Sheet

Section 01 - Identification

Product Identifier	ClearMem 3500
Other Means of Identification	None
Product Use and Restrictions on Use	Scale inhibitor for recirculating cooling systems, boiler water treatment, industrial cleaner.
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

Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Irritation	Category 1

Physical Hazards

Corrosive to Metals	Category 1
---------------------	------------

Danger

Hazards Statements

H314 – Causes severe skin burns and eye damage.

H318 – Causes serious eye damage.

H290 – May be corrosive to metals.

Pictograms



Precautionary Statements

P234 – Keep only in original container.

P260 – Do not breathe mist, vapours or spray.

P280 – Wear protective gloves, protective clothing, eye protection, and face protection.

P301 + P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin

P363 – Wash contaminated clothing before reuse.

P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

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

P390 – Absorb spillage to prevent material damage.

P405 – Store locked up.

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
Diethylenetriamine pentamethylene phosphonic acid	15827-60-8	48-52%	
Phosphorous Acid	13598-36-2	3%	

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. Seek medical attention if irritation occurs or persists.
Eye Contact	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.
Ingestion	Immediate first aid is not likely to be required if small amounts are ingested. If larger amounts are ingested, do not induce vomiting. If conscious and alert, have victim rinse mouth with water and drink 2-4 cups of water. Seek medical attention.
Additional Information	Not Available

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Water spray, foam, dry chemical or carbon dioxide for surrounding fire.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	Combustible products include carbon monoxide, carbon dioxide, nitrogen oxides, phosphorus oxides, and phosphines.
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.
Environmental Precautions	Prevent material from entering sewers and drains.
Methods and Materials for Containment and Cleaning Up	Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and then place in a chemical waste container. Flush area of spill with water.

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.
Conditions for Safe Storage	Keep in a cool, dry, well ventilated place. Suitable materials of construction for storage of this product include glass lining, PVC, polypropylene, glass reinforced plastic and polyethylene.
Incompatibilities	Corrosive to aluminum, mild steel and carbon steel. Contact with oxidizers, acids, alkalis and high temperatures.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
ClearMem 3500	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 being handled. Contact lenses should not be worn as they may contribute to severe eye injury.

Hand Protection Impervious gloves of chemically resistant material 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.

Respiratory Protection Respiratory protection likely not needed. However, care should be taken to avoid breathing excess vapour or mist. Use approved respiratory protection equipment when airborne exposure is excessive.

Thermal Hazards Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State	Liquid
Colour	Clear, dark amber
Odour	Not Available
Odour Threshold	Not Available

Property

pH	~2
Melting Point/Freezing Point	Not Available
Initial Boiling Point and Boiling Range	Not Available
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 Available
Vapour Density (Air=1)	Not Available
Relative Density	Not Available
Solubility(ies)	Completely miscible
Partition Coefficient: n-octanol/water	Not Available
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	Not Available
Viscosity	Not Available
Explosive Properties	Not Available
Specific Gravity (Water=1)	1.35-1.45
% Volatiles by Volume	Not Available
Formula	C ₉ H ₂₈ N ₃ O ₁₅ P ₅
Molecular Weight	573.2

Section 10 - Stability and Reactivity

Reactivity	Not Available
Stability	Stable under normal temperatures and conditions.
Possibility of Hazardous Reactions	Polymerization will not occur.
Conditions to Avoid	Heat.
Incompatible Materials	Corrosive to aluminum, mild steel and carbon steel. Contact with oxidizers, acid, alkalis and high temperatures.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, nitrogen oxides, phosphorus oxides.

Section 11 - Toxicological Information

Acute Toxicity Estimate

Component	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
ClearMem 3500	8328 mg/kg (rat)	>10000 mg/kg (rabbit)	Not Available

Chronic Toxicity – Carcinogenicity

Component	IARC
ClearMem 3500	None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

Skin Corrosion/Irritation	Corrosive. Capable of producing severe burns, blister, ulcers and permanent scarring.
Ingestion	May be harmful if swallowed in large amounts.
Inhalation	May cause respiratory tract irritation if inhaled.
Serious Eye Damage/Irritation	Corrosive. May cause burns and irritation the eyes, which may result in permanent injury.
Respiratory or Skin Sensitization	Not Available
Germ Cell Mutagenicity	Not Available
Reproductive Toxicity	Not Available
STOT-Single Exposure	Not Available
STOT-Repeated Exposure	No chronic effects reported.
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
Diethylenetriamine pentamethylene phosphonic acid	ErC ₅₀ (Selenastrum capricornutum, 95hr): >10mg/L	LC ₅₀ (Oncorhynchus mykiss, 96hr): 180-252mg/L	EC ₅₀ (Crassostrea virginica, 96hr): 155.8mg/kg
Biodegradability	Not readily biodegradable. However, there is evidence of partial degradation by abiotic processes in natural waters, and biodegradation following acclimation, or under conditions of low inorganic phosphate.		
Bioaccumulation	Not expected to be bioaccumulative.		
Mobility	Not Available		
Other Adverse Effects	Product possesses properties indicating a hazard for the environment. However, these hazards are related to acute toxicity, pH effects and metal chelation, which may become evident only at very high exposure levels.		

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	UN3265	
UN Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Diethylenetriamine pentamethylene phosphonic acid)	
Transport Hazard Class(es)	8	
Packaging Group	II	
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.	
Special Precautions	Not Available	
Transport in Bulk	Not Available	
Additional Information	<u>Packing Group</u>	<u>Limited Quantity Index</u>
	I	0
	II	1 L
	III	5 L

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 October 19, 2015

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