



Safety Data Sheet

Section 01 - Product And Company Identification

Product Identifier	ClearPAC Plus
Other Means of Identification	Poly aluminum chloride
Product Use and Restrictions on Use	Drinking 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

Section 02 - Hazard Identification

GHS-Classification

Serious Eye Damage/Irritation Category 1

Physical Hazards

Corrosive to Metals Category 1

Danger

Hazards Statements

H318 – Causes serious eye damage.
H290 – May be corrosive to metals.

Pictograms



Precautionary Statements

P234 – Keep only in original container.
P280 – Wear protective gloves/protective clothing/eye protection/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.
P310 – Immediately call a POISON CENTER or doctor/physician.
P390 – Absorb spillage to prevent material damage.

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Polyhydroxyl aluminum chloride	1327-41-9	25-40%	

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	Do not induce vomiting. If vomiting occurs naturally, lean victim forward to prevent breathing in vomitus. Give large amounts of water. Do not give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention.
Additional Information	Not Available

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Use extinguishing agents suitable for surrounding fire.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	Products of combustion include hydrochloric acid fumes.
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 material from entering sewers.
Methods and Materials for Containment and Cleaning Up	Neutralize solution with soda ash, lime or limestone. Note that carbon dioxide may form as a result.

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	Ideal storage temperatures should be 10-35°C in a well-ventilated area. Store away from incompatible materials. Keep storage area separate from populated work areas. Do not store in containers made of aluminum, magnesium, zinc, or copper.
Incompatibilities	Strong alkalis, strong acids, oxidizers, zinc, aluminum, and hydro-reactive materials.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
ClearPAC Plus	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 (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.

Respiratory Protection Respiratory protection is not normally required. If use creates vapours, mists, or aerosols, then a NIOSH-approved respirator with a dust/mist cartridge is recommended.

Thermal Hazards Not Available.

Section 09 - Physical and Chemical Properties

Appearance

Physical State	Liquid
Colour	Clear
Odour	Odourless
Odour Threshold	Not Available

Property

pH	2.2-2.8
Melting Point/Freezing Point	~ -20°C
Initial Boiling Point and Boiling Range	Decomposes at 90°C
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)	Hydrolyses
Partition Coefficient: n-octanol/water	>1
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	Not Available
Viscosity	Not Available
Explosive Properties	None
Specific Gravity (Water=1)	1.22-1.26
% Volatiles by Volume	Not Available
Formula	Complex mixture
Molecular Weight	Not Applicable. Mixture.

Section 10 - Stability and Reactivity

Reactivity	Not Available
Stability	Normally stable.
Possibility of Hazardous Reactions	Polymerization will not occur.
Conditions to Avoid	Not Available
Incompatible Materials	Avoid contact with strong alkalis, strong acids, oxidizers, zinc, aluminum, and hydro-reactive materials.
Hazardous Decomposition Products	May liberate Sulphur, aluminum oxides, hydrogen chloride, and chlorine when boiled to dryness or heated above 200°C.

Section 11 - Toxicological Information

Acute Toxicity

Component	Oral LD₅₀	Dermal LD₅₀	Inhalation LC₅₀
ClearPAC Plus	>5000mg/kg (rat)	Not Available	Not Available

Chronic Toxicity – Carcinogenicity

Component	IARC
ClearPAC Plus	Not considered carcinogenic to humans.

Skin Corrosion/Irritation	Direct contact can cause irritation and possible corrosive burns.
Ingestion	Ingestion can cause corrosive burns to mouth, throat and esophagus.
Inhalation	Irritation of the respiratory tract may result from mist exposure.
Serious Eye Damage/Irritation	Corrosive to the eyes.
Respiratory or Skin Sensitization	Not considered a respiratory or skin sensitizer.
Germ Cell Mutagenicity	Not Available
Reproductive Toxicity	Not Available
STOT-Single Exposure	Not Available
STOT-Repeated Exposure	Repeated and prolonged exposure of the skin to low concentrations of liquid can cause dermatitis.
Aspiration Hazard	Small amounts of product which enter the lungs during ingestion or vomiting can cause serious lung injury and death.
Synergistic Materials	Not Available

Section 12 – Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
ClearPAC Plus	Not Available	Not Available	Not Available
Biodegradability	Not Available		
Bioaccumulation	Not Available		
Mobility	Not Available		
Other Adverse Effects	Contact with lead pipes may lead to increased lead content.		

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	UN3264	
UN Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Polyhydroxyl aluminum chloride)	
Transport Hazard Class(es)	8	
Packaging Group	III	
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.

NSF Certification.....Product is certified under NSF for coagulation and flocculation at a maximum dosage of: 166 mg/L

NSF product use restrictions based on requirements obtained from the NSF website for current requirements.

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