



Safety Data Sheet

Section 01 - Product And Company Identification

Product Identifier	ClearPAC 180
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

H290 – May be corrosive to metals.

H318 – Causes serious eye damage.

Pictograms



Precautionary Statements

P234 – Keep only in original container.

P390 – Absorb spillage to prevent material damage

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.

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
Polyhydroxyl aluminum chloride	1327-41-9	30-60%	

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 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	Contact lenses should never be worn when working with this product. Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek immediate medical attention.
Ingestion	Do not induce vomiting. If vomiting occurs, 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	Does not burn or support combustion. Use extinguishing agents suitable for surrounding fire.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	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 from entering sewers.
Methods and Materials for Containment and Cleaning Up	Neutralize with alkaline material. Dilute solutions with soda ash, lime, or limestone. Note that carbon dioxide may form as a result, ensure area has proper ventilation.

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 incompatibles. Keep storage area separate from populated work areas. Do not store in containers made of aluminum, magnesium, zinc, copper.

Incompatibilities

Avoid contact with 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
Polyhydroxyl aluminum chloride	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

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, yellow to light brown
Odour	Hydrochloric acid odour
Odour Threshold	Not Available

Property

pH	1
Melting Point/Freezing Point	-20°C
Initial Boiling Point and Boiling Range	105°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	90°C
Viscosity	Not Available
Explosive Properties	None
Specific Gravity (Water=1)	1.3-1.4
% Volatiles by Volume	Not Available
Formula	Complex mixture
Molecular Weight	Not Available

Section 10 - Stability and Reactivity

Reactivity	Not Available
Stability	Normally stable
Possibility of Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Avoid temperatures below 0°C and above 35°C.
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 180	Not Available	Not Available	Not Available

Chronic Toxicity – Carcinogenicity

Component	IARC
Polyhydroxyl aluminum chloride	Not considered to be carcinogenic by NTP, IARC, and OSHA.
Skin Corrosion/Irritation	Mild irritant. Repeated & prolonged exposure of the skin to low concentrations of liquid can cause dermatitis.
Ingestion	Strong irritant with the danger of severe eye injury.
Inhalation	Ingestion can cause corrosive burns to mouth, throat, esophagus. Small amounts of product which enter the lungs during ingestion or vomiting can cause serious lung injury and death.
Serious Eye Damage/Irritation	Product does not readily form a vapour, so inhalation is only likely to occur if a mist is formed. Irritation of respiratory tract may result from mist exposure.
Respiratory or Skin Sensitization	Not a sensitizer
Germ Cell Mutagenicity	Not Available
Reproductive Toxicity	No known reproductive hazards.
STOT-Single Exposure	May be irritating to nose, throat, and respiratory tract.
STOT-Repeated Exposure	Not Available
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
Polyhydroxyl aluminum chloride	Not Available	LC ₅₀ (Danio, 96hr): >1000mg/L	EC ₅₀ (Daphnia, 48hr): 98mg/L
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 chlorosulphate)
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.

NSF Certification..... Product is certified under NSF for coagulation and flocculation at a maximum dosage of: 200 mg/L

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

Section 16 – Other Information

Preparation Date August 21, 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