

IV. **FIRST AID MEASURES**

- Eye Contact: **Do not rub.** Immediately flush eyes gently for 15 minutes with plenty of water. May irritate or burn the eyes. Get medical attention if irritation persists. .
- Skin Contact: Flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash contaminated clothing before reuse.
- Inhalation: Remove person from exposure area to fresh air. Seek medical attention if needed. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
- Ingestion: If conscious, immediately give large quantities of water or milk. Follow with milk of magnesia or whites of eggs, beaten in water. **DO NOT INDUCE VOMITING.** Never give anything by mouth to unconscious individual. Seek immediate medical attention.
- Advice to Physician Treat symptomatically.

V. **FIRE-FIGHTING MEASURES**

- Flashpoint: Not flammable
- Autoignition Temperature: Not applicable
- Flash point method: Not applicable
- Upper and lower flame limit: Not applicable
- Flame propagation rate (solids): Not applicable
- OSHA Flammability class: Not applicable

Suitable Extinguishing Agents:

If involved in a fire, use water. Water spray will probably reduce fumes and any irritating gases.

Unusual Fire and Explosion hazards:

Hydrochloric acid fumes are generated when this product is heated.

Special fire fighting precautions/instructions:

Use self-contained breathing apparatus and full protective clothing. Use water spray to keep containers cool. Do not splash any spilled material onto personnel.

VI. **STORAGE AND HANDLING**

NORMAL HANDLING:

Keep storage container tightly closed. Store in cool, dry well ventilated area or cabinet. Isolate from incompatible substances. Avoid contact with skin, eyes and clothing. Do not breathe product mists. Use with adequate ventilation. Handle as material of moderate oral toxicity. Do not smoke or eat while handling. Use good housekeeping and personal hygiene. Wash thoroughly after handling.

STORAGE RECOMMENDATIONS:

Keep container tightly closed when not in use. Store at moderate temperatures in a dry, well-ventilated area. Protect from physical damage and from freezing.

VII. **ACCIDENTAL RELEASE MEASURES/WASTE DISPOSAL**

Spill or Leak Procedures:

Dike area to contain spill. Neutralize spilled material with alkali such as soda ash. When using carbonates for neutralization, adequate precautions should be taken to minimize hazards from carbon dioxide gas generation. Collect liquid and/or residue and dispose of in accordance with applicable regulations.

Waste Disposal:

Dispose of waste in accordance with applicable federal, state, and local laws.

Spills and releases may have to be reported to Federal and/or local authorities.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION MEASURES

ENGINEERING CONTROLS:

Provide local exhaust if fuming or misty conditions prevail. Natural ventilation is normally adequate in the absence of such conditions.

Engineering Measures: Use local exhaust to keep airborne concentrations below the permissible exposure limits.

Personal Protection Equipment:

Eye Protection: Under normal working conditions, wear safety glasses. If there is reasonable probability of liquid contact with the eyes, wear chemical splash goggles and face shield. Eye wash station should be readily available. Do not wear contact lenses.

Skin Protection: Wear rubber gloves and apron, long sleeved shirts, trousers and boots. If prolonged or repeated contact is anticipated, all clothing should be imperious to liquid. Promptly wash any contaminated clothing.

Respiratory Protection: Generally none required. A respiratory protecting program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed when ever workplace conditions warrant respirator use. If misting conditions prevail, wear a NIOSH/OSHA approved respirator.

General Hygiene Considerations:

To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product. Provide eyewash stations and quick-drench shower facilities in or near areas of use of handling.

INGREDIENT NAME	ACGIH TLV	OSHA PEL	Ontario TWA EV	Mexico OEL (TWA)	NIOSH IDLH
Polyaluminum Hydroxychloride as Aluminum	2 mg/m ³	2 mg/m ³			
Aluminum chloride as aluminum	2 mg/m ³				

IX. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Clear, white to pale yellow liquid
Physical State:	liquid
Chemical Formula:	Mixture
Odor:	Odorless
Solubility in water (weight%)	100%
Melting point:	<-20C
Boiling point:	~110C
pH:	~1-2.5
Specific gravity:	~1.28-1.38 @ 25C
Vapor pressure	Not applicable
Vapor density (air=1.0)	Not applicable
Evaporation rate:	Not applicable
Viscosity:	No information available
Molecular Weight:	Mixture
% Volatiles:	0
Flash point:	Not flammable

Flash point method and additional flammability data are found in Section 5.

X. STABILITY AND REACTIVITY

Normal Stable (Conditions to Avoid): Stable under normal conditions of use and storage.
High temperatures may cause the generation of hydrogen chloride gas.
Incompatible Products: Alkalis and water reactive materials which have exothermic reactions.
Haz. Decomposition Products: Hydrogen chloride gas is formed at elevated temperatures.
Hazardous Polymerization: Will not occur under normal temperatures and pressures.

XI. TOXICOLOGICAL INFORMATION

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Aluminum chloride	380 mg/kg (RAT)		

DELATED SUBCHRONIC AND CHRONIC EFFECTS: Data not available

OTHER DATA: None

XII. ECOLOGICAL INFORMATION

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Aluminum chloride	EC50=2500 mg/L 72 hr.	LC50= 2010 mg/L Gambusia affinis 96hr.		EC50 = 3.9 mg/L 48hr

XIII. DISPOSAL CONSIDERATIONS

RCRA

Is the unused product a RCRA hazardous waste if discarded? Yes

If yes, the RCRA ID number is: D002 (corrosive)

OTHER DISPOSAL CONSIDERATIONS:

If permitted by regulations, material may be neutralized with alkali.

The information offered in Section 13 is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

XIV. Transportation Information

US DOT ID NUMBER: UN3264

PROPER SHIPPING NAME: corrosive liquid, acidic, inorganic, n.o.s. (aluminum chloride and Polyaluminum hydroxychloride

US DOT HAZARD CLASS: 8

PACKING GROUP: PGII

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

XV. REGULATORY INFORMATION

Regulatory:

TSCA INVENTORY STATUS: Listed on the TSCA Inventory

Other TSCA issues: None

SARA Title III/CERCLA: "Reportable quantities" (RQ5) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

Ingredient Name

No ingredients listed in this section.

SARA/CERCLA RQ (lb)

SARA EHS TPQ (lb)

