MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Poly Aluminum Chloride

SECTION 01: PRODUCT INFORMATION AND COMPANY INFORMATION

MANUFACTURER: Same as above
PREPARED BY: Production Department
VERSION DATE: 26-Apr-16
TELEPHONE NO.: (519) 451-1614
EMERGENCY PHONE NO.: (613) 996-6666
CHEMICAL FAMILY: Aluminum Chloride
CHEMICAL FORMULA: Not Applicable
MOLECULAR WEIGHT: Not Applicable
MATERIAL USE: Drinking water treatment
SYNONYMS: Aluminum Hydroxide Chloride Solution; Anfloc 50: Polyaluminum Chloride.

SECTION 02: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Ingredients</th>
<th>Conc.</th>
<th>C.A.S. #</th>
<th>LD/50 (RTE/SPEC)</th>
<th>LC/50 (RTE/SPEC)</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly Aluminum Chloride</td>
<td>25-40</td>
<td>1327-41-9</td>
<td>N.Av.</td>
<td>N.Av.</td>
<td>2mg/m3</td>
</tr>
</tbody>
</table>

SECTION 03: HAZARD IDENTIFICATION

ROUTE OF ENTRY

Eyes: Product is an irritant. Discomfort, tearing and blurring of vision may occur.

Skin: Severe skin irritant. Discomfort and rash may occur.

Inhalation: Harmful if inhaled. May irritate mouth, nose, and throat. May cause irritation of upper respiratory tract.

Ingestion: Harmful if swallowed.

SECTION 04: FIRSTAID

Skin Contact: Flush skin with water. Wash contaminated clothing before reuse.

Eye Contact: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Inhalation, Acute: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

Ingestion: Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing.

Notes to physician: Treatment based on sound judgment of physician and individual reactions of patient.

SECTION 05: FIRE EXPLOSION HAZARD AND FIRE FIGHTING MEASURES

FLAMMABLE?: No
IF YES, UNDER WHICH CONDITIONS?: N. App.
AUTO IGNITION TEMPERATURE (C) N. App.
EXTINGUISHING MEDIA Use extinguishing media appropriate for surrounding fire. Fire fighters should wear full protective clothing, including self-contained breathing equipment.

SPECIAL PROCEDURES: N. App.
UNUSUAL FIRE AND EXPLOSION HAZARDS N. App.
SENSITIVITY TO STATIC DISCHARGE N. App.
SENSITIVITY TO MECHANICAL IMPACT: N. App.

SECTION 06: ACCIDENTAL RELEASE MEASURES

Leak and Spill Procedure:
- Personal Precautionary Measures: Wear appropriate protective equipment.
- Environmental Precautionary Measures: Prevent entry into sewers or streams, dike if needed. Consult local authorities.
- Procedure for Clean Up: Contain spill by diking. Neutralize with lime slurry, limestone, or soda ash. This will generate carbon dioxide, so additional ventilation must be necessary. Maximize recovery for recycling or reuse. Floor may be slippery; use care to avoid falling. Will give a strong astringent taste to water supply. High concentration may increase lead content of water if lead supply pipes are used.

SECTION 07: HANDLING AND STORAGE

Handling Procedures and Storage Requirements
- Handling: Handle in containers, piping and pumps made of stainless steel, fibreglass or plastic. Avoid prolonged contact with eyes or prolonged skin contact.
- Storage: Do not store in aluminum, aluminum alloys, copper and copper alloys. Store in accordance with good industrial practices.

SECTION 08: PERSONAL PROTECTIVE EQUIPMENT / EXPOSURE CONTROLS

GLOVES/TYPE: Impervious chemical resistant gloves. Not leather.
RESPIRATOR/TYPE: If exposure exceeds occupational exposure limits, use an appropriate NIOSH- approved respirator. Use an approved dust and mist respirator with acid mist if necessary.
EYE/TYPE: Chemical goggles; also wear a face shield if splashing hazard exists.
OTHER/TYPE: Ensure that eyewash stations and safety showers are proximal to the work-station location. When cleaning, decontaminating or performing maintenance on tanks, containers, piping systems and accessories and in any other situations where airborne contaminants and/or dust could be generated, use protective equipment to protect against ingestion or inhalation. HEPA or air supplied respirator, full Tyvek coveralls with head cover, gloves and boots or chemical suits are suggested.

ENGINEERING CONTROL Local exhaust ventilation as necessary to maintain exposures to within applicable limits.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIE

PHYSICAL STATE/APPEARANCE: Liquid (Colorless to faint yellow)
ODOUR: Odorless
VAPOUR PRESSURE (mm Hg @ 20C): N. Av.
EVAPORATION RATE (Ether = 1): N. Av.
BOILING POINT (C): 90 C
Ph (% SOLUTION): 2.2 - 2.8
SOLUBILITY IN WATER (% W/W) Hydrolyses

SECTION 10: STABILITY AND REACTIVITY

CHEMALLY STABLE? Yes
IF NO, UNDER WHICH CONDITIONS? N. App.
INCOMPATIBILITY WITH OTHER SUBSTANCES Yes
IF YES, WITH WHICH ONES: Strong bases. Alkalies. Hydroreactive materials (e.g. Oleum)
SPECIAL REACTIVITY AND UNDER WHAT CONDITIONS Moderately acidic and slowly corrodes steel. Do not store in containers made of aluminum, magnesium, zinc or copper alloys.

SECTION 11: TOXICOLOGICAL INFORMATION

EXPOSURE LIMIT OF MATERIAL N. Av.

LC 50 OF MATERIAL, SPECIES AND ROUTE See Sec. 2
LD 50 OF MATERIAL, SPECIES AND ROUTE See Sec. 2

CARCINOGENICITY OF MATERIAL N. Av.

REPRODUCTIVE EFFECTS: N. Av.

IRRITANCY OF MATERIAL N. Av.

SENSITIZING CAPABILITY OF MATERIAL N. Av.

SYNERGISTIC MATERIALS N. Av.

SECTION 12: ECOLOGICAL INFORMATION

AQUATIC TOXICITY N. Av.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Disposal of Waste Method: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations. Contaminated Packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

SECTION 14: TRANSPORT INFORMATION

TDG CLASSIFICATION Class 8, Corrosive Liquid, N.O.S. (Aluminum Chloride Hydroxide)
UN NUMBER: 1760
PACKING GROUP: II

SECTION 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION E CORROSIVE MATERIAL

SECTION 16: OTHER INFORMATION

ABBREVIATIONS USED: N.Av. = Not Available

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SOURCES: Supplier MSDS

For updated copies of an MSDS, please contact Anchem Sales at the address/phone number on Page 1 or fax the MSDS Co-ordinator at (519) 451-4593.