MATERIAL SAFTY DATA SHEET

POLY ALUMINIUM CHLORIDE

PRODUCT: POLY ALUMINIUM CHLORIDE

SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

WATER SPECIALIST SUPPLY CO.,LTD.

78/7 Moo4 Khae Rai, Krathum Baen, Samut Sakhon 74110 Call (+66) 34-440-851 to 3, (+66) 95-367-5790 Fax (+66) 34-440-851 to 3 ext.105

Email: Water_wss@hotmail.com

PREPARED BY...... Water Specialist Supply CO.,LTD

PRODUCT NAME......Poly Aluminium Chloride

MOLECULAR WEIGHT......9.5W/W Al2O3 minimum .

CHEMICAL FAMILY...... ACID .

EMERGENCY PHONE NO...... (+66)34-440-851 to 3 or (+66)95-367-5790

SECTION 02: COMPOSITION/INFORMATION ON INGREDIENT

Content Ingredients Ingredient to Hazardous C.A.S.#

Poly Aluminium Chloride YES 1327-41-9

U.N.NO.: None Allocated DG CLASS: None Allocated SUB RISK: None Allocated HAZCHEM: None Allocated

POISON SCHEDULE: None Allocated USES:Water treatment chemical.

SECTION 03: HAZARDS IDENTIFICATION

Potential Health Effects

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Most important hazard: Mild Irritant

Safety Phrases: Keep out of reach of children. In case of contact with skin wash

immediately with plenty of water.

ACUTE EFFECTS

Swallowed: May cause nausea, vomiting and respiratory irritation.

Eye: May cause eyes irritation.

Skin: May cause irritation with prolonged contact.

Inhaled: May irritate the mucous membranes.

Chronic effect: NO KNOWN EFFECTS

SECTION 04: FIRST AID MEASURES

INSTRUCTIONS:

Swallowed: Give water to drink .Do not induce vomiting. Seek immediate medical attention.

Eye: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelid to be held open. Seek medical advice.

Skin:Wash with soap & water.Remove contaminated clothing.launder clothes before reuse.If irritation persists seek medical advice.

Inhaled: Remove to fresh air. Seek medical attention if irritation persists.

Ingestion : Do not induce vomiting. Administer a 5% solution of Sodium bicarbonate followed by milk. Obtain medical attention.

ADVICE TO DOCTOR

Treat symptomatically.

SECTION 05 :FIRE FIGHTING MEASURES

Material is non flammable. On burning will emit fumes. Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion.

Extinguishing Media: Water spray, foam, dry agent (carbon dioxide, dry chemical powder).

SECTION 06: ACCIDENTAL RELEASE MEASURES

Spills

Wear protective equipment to prevent skin and eye contamination and inhalation of dust. Sweep up but avoid generating dust. Collect and place in properly labelled containers for disposal. Residues may be flushed to drain with large amounts of water if permitted.

Personal Precautions:

Wear protective clothing. See Section 8 of this Data Sheet.

Environment Precaution:

Where a spillage or contaminated washings causes contamination of watercourses, drains or vegetation inform relevant authorities.

Clean Up Procedure:

Contain all spillage of PAC. Dispose of using licensed waste disposal contractors.

SECTION 07: HANDLING AND STORAGE

Handling Precautions:

Wear Protective clothing. Safety showers and eye wash facilities should be provided in areas where an accidental exposure is possible. Once diluted it should be used as soon as possible.

Storage:

Poly Aluminium Chloride becomes unstable when stored or transported for some time at temperatures higher than 40 degree C. PAC tends to hydrolyse to a white turbid solution and loses effectiveness when it is kept long a diluted solution of less than approximately 3% (as Al2O3)

Compatible Materials:

Lead, Ebonite coated Steel (4 mm Thickness, min.), Rubber, Glass Fibre, Glass HDPE, PVC. Incompatible Materials: Mild Steel, Copper, Zinc, Silver.

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SECTION 08: EXPOSE CONTROL/PERSONAL PROTECTION

Avoid skin and eyes contact and inhalation of dust. Wear overalls, eye protection & gloves. Respiratory protection is require in dusty environment. Use an approved dust mask. Use with adequate ventilation. Always wash hands before smoking, eating, drinking or using the toilet,

Respiratory Protection: None required where adequate ventilation conditions exist, if airborne concentration is high, use an appropriate respirator/dust mask.

Ventilation: Use adequate general/local exhaust to keep fume/dust levels as low as possible.

Protective Gloves: Rubber.

Eye Protection: Safety Goggles.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Appearance, odour :Amber-Light Pale Yellow powder.

Odour : Odourless

Density-G/Cm3 at 20 degree C : 1.2 ± 0.05

Molecular Weight: Formula (Aln (OH)m Cl3n-m)x containing 9.5 W/W Al2O3

minimum

Solubility: Highly soluble, miscible in all proportion.

Melting Point: Not Available

Freezing Point: -10 degree C

Bulk Density: 0.65g/cm3

Vapour Density: Not Available

Vapour Pressure(20°C): Not Available

Flash Point(Closed cup): Non Flammable

Autoignition Temp(°C): Not Available

pH(at g/l H2O) : 2.3 ± 0.3 (3.5 ± 0.5 of 5% aqueous solution)

Solubility in water (g/L): Soluble

Viscosity: 4 ± 0.4 cSt at 20 degree C

SECTION 10:STABILITY AND REACTIVITY

Stability:

As supplied Poly Aluminium Chloride is stable at normal temperatures and pressures.

Reactivity:

AIR: No Reaction

WATER: Coagulates substances suspended or dispersed in water to settle quickly to

form a filterable sludge

ACIDS: With hydrochloric acid or sulphuric acid bulk precipitation of solid occur

BASIS / ALKALIS: Bulk precipitation occurs with evolution of heat.

SECTION 11: TOXICOLOGICAL INFORMATION

Skin/Eye: Causes Irritation

Skin Absorption: Repeated skin exposure may cause Dermatitis

Ingestion: Irritation of mucous membrane brought into direct contact.

Toxicity: Acute oral toxicity in mice 34.5 g/kg.

SECTION 12: ECOLOGICAL CONSIDERATION

The product undergone tests with various concentrations, proved to be entirely harmless to aquatic life up to concentration of 200 mg/l expressed as Al2O3 (corresponding to 2 g/l of PAC AC/100 S).

SECTION 13: DISPOSAL CONSIDERATION

Spillages: See Section 6 of this Data Sheet

Waste: Dispose of PAC using a licensed waste disposal contractor

SECTION 14: TRANSPORT INFORMATION

UN No. / GGVE / GGVS : See IMDG Code

ICAO / IATA - DGR : Class 8 UN 1760

IMDG Code: IMDG Code Class N degree 8UN 1760

IMDG Code: IMDG Code Class N degree 8UN 1760

IMDG Code Page 8070

RID / ADR: Class 8.5 degree C

SECTION 15 : REGULATORY INFORMATION

Symbol(s): Mild Irritant

R-Phrases(s): R38 – Irritating to skin

S-Phrases(s): S26 - Keep out of reach of children In case of contact with the eyes,

rinse immediately with plenty of water and seek medical advice.

S2 - Keep out of reach of children

SECTION 16:OTHER INFORMATION

Principal references

This chemical is listed on the Australian Inventory of Chemical Substances(AICS).

Label Precautions:

Avoid contact with eyes ,Skin and clothing.

Wash throughly after handling.

Keep container closed.

Avoid breathing dust.

Use only with adequate ventilation.

Disclaimer:

Water Specialist Supply(WSS THAILAND) CO.,Ltd provide information contained here in good faith but make no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handing of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.