

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

Section 1: Identification of the substance and company

Product Name: Polyaluminum Chloride Solution

Chemical Name: Polyaluminum Chloride Hydroxide

Company Identification

Acorn Water Ltd
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MSDS NO: 1514
CAS NO: 1327-41-9
EINECS No: 215-477-2
Revision No: 02
Revision Date: 29/09/09
Supercedes:01
Health & Safety Manager: A. Holland
REACH Reg No.150605

Section 2: Hazards Information

Risk of damage to eyes. Prolonged contact with skin may cause possible dermatitis.

Occupational Exposure Limit (TWA) 10mg/m³ total inhalable dust
5mg/m³ respirable dust

Section 3: Composition/Information on ingredients

<u>Ingredients:</u>	Polyaluminum Chloride, H2O	<u>Classification</u>	CAS No.
		Mild Irritant	1327-41-9

Section 4: First Aid Measures

<u>Skin contact:</u>	Remove contaminated clothing and wash affected areas with copious quantities of water.
<u>Eye contact:</u>	Immediately irrigate with water for at least 10 minutes. Seek medical attention.
<u>Inhalation:</u>	Remove from contaminated area.
<u>Ingestion:</u>	Providing patient is conscious. Wash out mouth with water and give 5% Sodium Bicarbonate solution followed by a demulcent such as milk.
<u>Further medical advice:</u>	If in doubt seek medical attention.

Section 5: Fire fighting measures

<u>Fire extinguishing data:</u>	Water or dry powder may be used in the vicinity of Aluminum Sulphate, keep containers cool with copious amounts of water.
<u>Fire fighting protective equipment:</u>	Wear full protective clothing.
<u>Unusual fire and explosive hazards:</u>	In contact with metals, Polyaluminum may liberate the flammable gas Hydrogen.

Section 6: Accidental release measures

<u>Small spillage:</u>	Wash away with large quantities of water.
<u>Large spillage:</u>	Neutralise with lime or soda ash, then dispose of according to local Regulations.
<u>Personal precautions:</u>	Wear full protecting clothing.
<u>Neutralising chemicals:</u>	Hydrated lime or soda ash.

Section 7: Handling and Storage

Handling:	Avoid contact with skin and eyes. Keep away from metals, organic materials, nitrates, chlorates, and carbides.
Storage:	Bulk quantities should be stored in Ebonite coated steel, rubber ó lined mild-steel glass fibre or plastic tanks. For small packages polyethylene or double skinned polyethylene containers are acceptable.

Section 8: Exposure Controls/Personal Protection

<u>General precautions:</u>	Eye and skin protection should be used when handling Sodium Carbonate.
<u>Ventilation requirements:</u>	None.
<u>Respiratory protection:</u>	Not normally required.
<u>Protective clothing:</u>	Gloves and acid resistant footwear.
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Section 9: Physical and Chemical properties

<u>Appearance and odour:</u>	Colourless to yellow solution with little or no odour
<u>Concentration:</u>	10 ± 0.3% w/w Al ₂ O ₃
<u>Boiling point @ 100 kPa³</u>	100°C
<u>Specific gravity:</u>	1.215 ±0.025 @ 15°C
<u>Vapour pressure:</u>	Not known
<u>Solubility in water:</u>	Fully miscible in water
<u>Critical temperature:</u>	N/A
<u>Critical pressure:</u>	N/A
<u>Physical hardness:</u>	N/A

Section 10: Stability and Reactivity

<u>Stability:</u>	Stable
<u>Incompatibility:</u> (materials and conditions to avoid)	Some oxidising agents eg. Chlorites and Hypochlorites . Attacks most metals liberating Hydrogens.

Hazardous Decomposition products

Section 11: Toxicological Information

Short term effects of over exposure when:

In contact with skin:	Irritant- after prolonged contact with skin produces sores and possible dermatitis.
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In contact with eyes:	Irritates immediately and could cause severe damage which could lead to permanent visual effects or even total loss of vision.
Inhaled:	Product does not fume.
Ingested:	Very astringent to mouth ,nose and throat. Oral route (72hr LD50) rat = 12. 79g/kg, Intraperitoneal route 1. 92g/kg
Long term exposure:	

Section 12: Ecological Information

Environmental fate and distribution:	High tonnage material produced in wholly contained systems. High tonnage materials used in partially contained systems. The substance is soluble in water
Persistence and degradation:	Unlikely to cause harmful effects. Remains indefinitely in the environment.
Toxicity:	Large discharges may contribute to acidification of effluent treatment systems and will injure treatment organisms. The product is a primary coagulant and may cause solid settlement in treatment systems.
Effect on effluent treatment:	Large discharges may contribute to acidification of effluent treatment systems and will injure treatment organisms. The product is a primary coagulant and may cause Solid settlement in treatment systems.

Section 13: Disposal Considerations

<u>Small spillage:</u>	Wash away with large quantities of water.
<u>Large spillage:</u>	Neutralise with lime or soda ash, then dispose of according to local Regulations.
<u>Personal precautions:</u>	Wear full protective clothing.
<u>Neutralising chemicals:</u>	Hydrated lime or soda ash.
<u>Waste:</u>	Neutralise with lime and landfill in accordance with local regulations.

Section 14: Transport Information

UN 3264, Corrosive liquid, Inorganic, Acidic, N.O.S, (contains Polyaluminium Chloride Hydroxide), 8, I

ADR/RID:	Class 8, Classification Code C9, Packing Group I
IATA:	Class 8
IMDG:	Class 8

Section 15: Regulatory Information

Label Information:

Hazard symbol:	Xi: Irritant
Risk phrases:	R36: Irritating to eyes
Safety phrases:	S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Section 16: Other Information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is only as a guidance for safe, handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material in combination with any other materials or in any process unless specified in the text.

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