1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product identifier:

Product name: POLYALUMINIUM CHLORIDE SOLUTION 10%

Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Drinking water treatment, Waste-water treatment.

Company name:

Nexchem Ltd
Unit 3 Barshaw Park
Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
24/7 Emergency Tel: 0800 246 1274
Email: sales@nexchem.co.uk

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification (EC 1272/2008):

Physical hazards: Met. Corr. 1 - H290

Health hazards: Eye Dam. 1 - H318

Environmental hazards: Not Classified

Label elements:

Hazard pictograms:

Signal word: Danger.

Hazard statements: H290 May be corrosive to metals.
H318 Causes serious eye damage.

[cont…]

Precautionary statements: P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P261 Avoid breathing vapour/ spray.
P264 Wash skin thoroughly after handling.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P313 Get medical advice/ attention.
P406 Store in a corrosion-resistant container with a resistant inner liner.

Contains: Aluminium chloride hydroxide sulphate.

Other hazards:

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures: Aluminium chloride hydroxide sulphate 10%
CAS number: 39290-78-3
EC number: 254-400-7
REACH registration number: 01- 2119531540-51-XXXX

Classification: Met. Corr. 1 - H290
Eye Dam. 1 - H318

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

4. FIRST AID MEASURES

Description of first aid measures:

General information: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Inhalation: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

Ingestion: Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Get medical attention immediately.

Skin contact: Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.

Eye contact: Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed:

Skin contact: Causes severe burns.
Eye contact: Causes serious eye damage.

Indication of any immediate medical attention and special treatment needed:

Notes for the doctor: Treat symptomatically.

[cont…]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media: Extinguish with dry sand. Water spray, foam, dry powder or carbon dioxide.
Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture:

Specific hazards:

Thermal decomposition or combustion products may include the following substances:

Toxic gases or vapours.
Sulphurous gases (SOx).
Hydrogen chloride (HCl).

Advice for firefighters:

Protective actions during firefighting: Avoid breathing fire gases or vapours.
Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.
Fight fire from safe distance or protected location.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal precautions: Wear protective clothing as described in Section 8 of this safety data sheet.
Avoid inhalation of vapours and contact with skin and eyes.
Evacuate area.

Environmental precautions: Avoid discharge into drains.
Avoid or minimise the creation of any environmental contamination.
Contain spillage with sand, earth or other suitable non-combustible material.

Methods and material for containment and cleaning up:

Methods for cleaning up: Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate.
Stop leak, if possible, without risk.
Do not touch or walk into spilled material.
Contain and absorb spillage with sand, earth or other non-combustible material.
Collect and place in suitable waste disposal containers and seal securely.
Flush contaminated area with plenty of water.
Wash thoroughly after dealing with a spillage.

Reference to other sections: For personal protection, see Section 8. For waste disposal, see Section 13.

[cont…]

7. HANDLING AND STORAGE

Precautions for safe handling:

Usage precautions: Wear protective clothing as described in Section 8 of this safety data sheet.
Avoid inhalation of vapours/spray and contact with skin and eyes.
Provide adequate ventilation.
Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.
Eye wash facilities and emergency shower must be available when handling this product.

Conditions for safe storage, including any incompatibilities:

Storage precautions: Store in tightly-closed, original container in a dry, cool and well-ventilated place.
Keep away from food, drink and animal feeding stuffs.

Suitable container materials: Suitable plastic material. Polyethylene-lined mild steel.

Storage class: Corrosive storage.

Specific end use(s):

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Ingredient comments: WEL = Workplace Exposure Limits

Biological limit values: 2 mg/m3, 8-hour TWA (soluble Al salts), 2 mg/m3, 8-hour TWA (soluble Al salts), 2 mg/m3, 8- hour TWA (soluble Al salts)

Exposure controls:

Protective equipment:


Eye/face protection: Wear chemical splash goggles.
Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection: It is recommended that chemical-resistant, impervious gloves are worn. To protect hands from chemicals, gloves should comply with European Standard EN374. It is recommended that gloves are made of the following material: Polyvinyl chloride (PVC). It should be noted that liquid may penetrate the gloves. Frequent changes are recommended.

Hygiene measures: Provide eyewash station. Wash promptly if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.

Respiratory protection: If ventilation is inadequate, suitable respiratory protection must be worn.

[cont…]

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Appearance:	Liquid.
Colour:	Straw.
Odour:	Almost odourless.
pH:	pH (concentrated solution): 1.8 - 2.5
Melting point:	< -25°C
Vapour pressure:	30 mm Hg @ 0°C
Relative density:	1.21 @ 20°C
Solubility(ies):	Miscible with water. Dilute solutions hydrolyse to precipitate Al(OH)3 .
Viscosity:	4 cP @ 20°C
Other information:	

10. STABILITY AND REACTIVITY

Reactivity: Stable under normal temperature conditions and recommended use.
Contact with some metals can lead to the generation of hydrogen gas, which may form explosive mixtures with air.

Chemical stability:

Stability: Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous reactions: Under normal conditions of storage and use, no hazardous reactions will occur.

Conditions to avoid: Avoid excessive heat for prolonged periods of time.

Incompatible materials:

Materials to avoid: Metals. Hypochlorites. Sulphites. Chlorites. Iron salts. Aluminium salts.

Hazardous decomposition products:

Thermal decomposition or combustion products may include the following substances:

Sulphurous gases (SOx).
Hydrochloric Acid.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Skin corrosion/irritation:	Causes severe burns.
Serious eye damage/irritation:	Risk of serious damage to eyes.
Inhalation:	May cause damage to mucous membranes in nose, throat, lungs and bronchial system.
Ingestion:	May cause chemical burns in mouth, oesophagus and stomach. May cause stomach pain or vomiting. Diarrhoea.
Skin contact:	May cause serious chemical burns to the skin.
Eye contact:	Causes burns.

[cont…]

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not regarded as dangerous for the environment.

Toxicity: No data available for this product.

Persistence and degradability: Will disperse as ions.
Stability (hydrolysis): Hydrolyses when diluted in water, forming Al(OH)3.

Bioaccumulative potential: The product is not bioaccumulating.

Mobility in soil:
Mobility: The product is soluble in water.

Results of PBT and vPvB assessment: Not classified as PBT.

Other adverse effects: The product is acidic.
The product will reduce the pH of watercourses and drains and will cause damage to flora and fauna.
Do not allow to enter into ground-water, surface water or drains.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:
General information: Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods: Confirm disposal procedures with environmental engineer and local regulations. Do not allow runoff to sewer, waterway or ground. Small spills may be neutralised with sodium carbonate, lime, or calcium carbonate, and flushed to sewer. Large amounts of aluminium salts should be contained, and then be neutralised with a weak alkali solution. The resulting suspension (mainly alumina) may be regarded as neutral waste and disposal should be in accordance with local or state or national legislation.

14. TRANSPORT INFORMATION

UN number:
UN No. (ADR/RID): 3264
UN No. (IMDG): 3264
UN No. (ICAO): 3264
UN No. (ADN): 3264

[cont…]

UN proper shipping name:

Proper shipping name (ADR/RID): CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

Proper shipping name (IMDG): CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

Proper shipping name (ICAO): CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

Proper shipping name (ADN): CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

Transport hazard class(es) :

ADR/RID class: 8

ADR/RID classification code: C1

ADR/RID label: 8

IMDG class: 8

ICAO class/division: 8

ADN class: 8

Transport labels:

Packing group:

ADR/RID packing group: III

IMDG packing group: III

ICAO packing group: III

ADN packing group: III

Environmental hazards:

Environmentally hazardous substance/marine pollutant: No.

Special precautions for user:

IMDG Code segregation group: 1. Acids

EmS: F-A, S-B

ADR transport category: 3

Emergency Action Code: 2X

Hazard Identification Number (ADR/RID): 80

Tunnel restriction code: (E)

Transport in bulk according to Annex II of MARPOL and the IBC Code:

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

EU legislation: This product has been approved as a chemical used for the treatment of drinking water, under the appropriate BS EN Standard (see Sales Specification), and so it is also approved under Regulation 31 of the Water Supply (Water Quality) Regulations 2000. Regulation (EC) No 1272/2008 CLP. Regulation (EC) No 1907/2006 REACH.

[cont…]

Chemical safety assessment: A chemical safety assessment has been carried out.

Note: The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Hazard statements in full: H290 May be corrosive to metals.
H318 Causes serious eye damage.

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.