

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

Product identifier:

Product name: ALUMINIUM CHLORIDE GRANULES
REACH registration number: 01-2119459371-39-xxxx
CAS number: 7446-70-0
EU index number: 013-003-00-7
EC number: 231-208-1

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

Identified uses: Water treatment. Intermediate.

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: Not Classified
Health hazards: Skin Corr. 1B - H314
Environmental hazards: Not Classified

Label elements:

EC number: 231-208-1

Pictogram:



Signal word:

Danger

Hazard statements:

H314 Causes severe skin burns and eye damage.

SAFETY DATA SHEET

Aluminium Chloride Granules

Issued: 12/07/2016

Page 2

Precautionary statements:

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with water/ shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplementary precautionary statements: P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash contaminated skin thoroughly after handling.
P321 Specific treatment (see medical advice on this label).
P310 Immediately call a POISON CENTER/ doctor.
P363 Wash contaminated clothing before reuse.
P405 Store locked up.

Other hazards: Dust may irritate the eyes and the respiratory system. Causes severe skin burns and eye damage.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances:

Product name: ALUMINIUM CHLORIDE GRANULES
REACH registration number: 01-2119459371-39-xxxx
EU index number: 013-003-00-7
CAS number: 7446-70-0
EC number: 231-208-1

4. FIRST AID MEASURES

Description of first aid measures:

General information: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). CAUTION! First aid personnel must be aware of own risk during rescue!
Consult a physician for specific advice.

Inhalation: Move affected person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place. Get medical attention immediately.

Ingestion: Rinse mouth thoroughly with water. Give plenty of water to drink. Never give anything by mouth to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately.
Chemical burns must be treated by a physician.

[cont...]

SAFETY DATA SHEET

Aluminium Chloride Granules

Issued: 12/07/2016

Page 3

Skin contact:	Remove affected person from source of contamination. Get medical attention immediately. Remove contaminated clothing and rinse skin thoroughly with water. Continue to rinse for at least 15 minutes. Get medical attention immediately. Wash contaminated clothing before reuse. Chemical burns must be treated by a physician.
Eye contact:	Remove affected person from source of contamination. 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. Continue to rinse.
Most important symptoms and effects, both acute and delayed:	
Inhalation:	Upper respiratory irritation. Coughing.
Ingestion:	May cause stomach pain or vomiting. May cause discomfort if swallowed. May cause chemical burns in mouth and throat.
Skin contact:	Burning pain and severe corrosive skin damage.
Eye contact:	Causes serious eye damage. Causes burns.

Indication of any immediate medical attention and special treatment needed:

Notes for the doctor: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media: ABC type fire extinguisher Extinguish with carbon dioxide or dry powder.

Unsuitable extinguishing media: Foam. Do not use water, if avoidable.

Special hazards arising from the substance or mixture:

Specific hazards: Reacts violently with water, liberating extremely flammable gases.

Hazardous combustion products: Hydrogen chloride (HCl).

Advice for firefighters:

Protective actions during firefighting: Do not allow water to enter the container as it will react with the product. Reacts violently with water, liberating extremely flammable gases. Avoid breathing fire gases or vapours.

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: Ensure procedures and training for emergency decontamination and disposal are in place. No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Do not touch or walk into spilled material. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of dust and contact with skin and eyes. Provide adequate ventilation. Use suitable respiratory protection if ventilation is inadequate.

[cont...]

SAFETY DATA SHEET
Aluminium Chloride Granules

Issued: 12/07/2016

Page 4

Environmental precautions: Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

Methods and material for containment and cleaning up:

Methods for cleaning up: Avoid generation and spreading of dust. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible.

Reference to other sections: Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. Collect and dispose of spillage as indicated in Section 13.

7. HANDLING AND STORAGE

Precautions for safe handling:

Usage precautions: Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation. If ventilation is inadequate, suitable respiratory protection must be worn. Avoid inhalation of dust and contact with skin and eyes. Wear suitable protective equipment for prolonged exposure and/or high concentrations of vapours, spray or mist.

Advice on general occupational hygiene: Do not eat, drink or smoke when using this product. Eye wash facilities and emergency shower must be available when handling this product. Good personal hygiene procedures should be implemented. Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Care should be taken to avoid contact with contaminants when removing contaminated clothing. Remove contaminated clothing and protective equipment before entering eating areas. Wash at the end of each work shift and before eating, smoking and using the toilet.

Conditions for safe storage, including any incompatibilities:

Storage precautions: Store in tightly-closed, original container in a dry, cool and well-ventilated place. Do not store near heat sources or expose to high temperatures.

Storage class: Corrosive storage.

Specific end use(s): The identified uses for this product are detailed in Section 1.2.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Ingredient comments: No exposure limits known for ingredient(s).

DNEL: Workers - Inhalation; Long term local effects: 1 mg/m³
Workers - Inhalation; Short term local effects: 2 mg/m³
Consumer - Oral; Long term systemic effects: 0.3 mg/kg/day

[cont...]

Exposure controls:

Protective equipment:



Appropriate engineering controls: No specific ventilation requirements. This product must not be handled in a confined space without adequate ventilation. Work in fume cupboard.

Eye/face protection: Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Dust-resistant, chemical splash goggles.

Hand protection: The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection: Provide eyewash station and safety shower. Wear apron or protective clothing in case of contact.

Hygiene measures: When using do not eat, drink or smoke. Wash promptly if skin becomes contaminated. Good personal hygiene procedures should be implemented. Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Care should be taken to avoid contact with contaminants when removing contaminated clothing. Wash at the end of each work shift and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product. Eye wash facilities and emergency shower must be available when handling this product.

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

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Appearance:	Solid. Granules.
Colour:	White/off-white. Grey. Yellow.
Odour:	Pungent.
Odour threshold:	Not available.
pH:	Not available.
Melting point:	192.5°C
Initial boiling point and range:	180°C @ 760 mm Hg
Flash point:	Not available.
Evaporation rate:	Not available.
Upper/lower flammability or explosive limits:	Not available.
Vapour pressure:	0.13 kPa @ °C
Vapour density:	Not available.
Relative density:	2.44 @ 25°C

SAFETY DATA SHEET
Aluminium Chloride Granules

Issued: 12/07/2016

Page 6

Solubility (ies): Reacts violently with water, liberating extremely flammable gases.
Partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition Temperature: Not available.
Viscosity: Not available.
Explosive properties: Not available.
Oxidising properties: Not available.

Other information: Molecular weight 133.34

10. STABILITY AND REACTIVITY

Reactivity: Reacts violently with water, liberating extremely flammable gases.

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

Possibility of hazardous reactions: The following materials may react with the product: Water, moisture.

Conditions to avoid: Water, moisture. Reacts strongly with water. Never add water directly to this product as it may cause a vigorous reaction or boiling.

Incompatible materials:

Materials to avoid: Strong oxidising agents. Alkali metals. Water, moisture.

Hazardous decomposition products: Oxides of the following substances: Aluminium. Hydrogen chloride (HCl).

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀mg/kg): 2,000.00

Species: Rabbit

Inhalation: May cause damage to mucous membranes in nose, throat, lungs and bronchial system. Dust may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.

Ingestion: Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract. May cause discomfort if swallowed.

Skin contact: Burning pain and severe corrosive skin damage. Causes burns.

Eye contact: Causes burns. Causes serious eye damage. Route of entry Inhalation Skin and/or eye contact.

12. ECOLOGICAL INFORMATION

Ecotoxicity: The product is not expected to be hazardous to the environment.

Toxicity:

Acute toxicity – fish: LC₅₀, 96 hours: 570 ug/l, Onchorhynchus mykiss (Rainbow trout)

Acute toxicity – aquatic invertebrates: EC₅₀, 48 hours: 3.65 mg/l, Daphnia magna

[cont...]

SAFETY DATA SHEET
Aluminium Chloride Granules

Issued: 12/07/2016

Page 7

Acute toxicity - aquatic plants: EC₅₀, 96 hours: 460 ug/l, Pseudokirchneriella subcapitata

Persistence and degradability: There are no data on the degradability of this product.

Bioaccumulative potential: No data available on bioaccumulation.

Partition coefficient: Not available.

Mobility in soil:

Mobility: No data available.

Results of PBT and vPvB assessment: Not applicable.

Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

General information: Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods: The generation of waste should be minimised or avoided wherever possible. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority. Waste is suitable for incineration. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues and hence be potentially hazardous. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

14. TRANSPORT INFORMATION

UN number:

UN No. (ADR/RID): 1726

UN No. (IMDG): 1726

UN No. (ICAO): 1726

UN proper shipping name:

Proper shipping name (ADR/RID): ALUMINIUM CHLORIDE, ANHYDROUS

Proper shipping name (IMDG): ALUMINIUM CHLORIDE, ANHYDROUS

Proper shipping name (ICAO): ALUMINIUM CHLORIDE, ANHYDROUS

Proper shipping name (ADN): ALUMINIUM CHLORIDE, ANHYDROUS

[cont...]

SAFETY DATA SHEET
Aluminium Chloride Granules

Issued: 12/07/2016

Page 8

Transport hazard class(es):

ADR/RID class: 8
ADR/RID label: 8
IMDG class: 8
ICAO class/division: 8

Transport labels:



Packing group:

ADR/RID packing group: II
IMDG packing group: II
ICAO packing group: II

Environmental hazards:

Environmentally hazardous substance/marine pollutant: No.

Special precautions for user:

EmS: F-A, S-B
Emergency Action Code: 4W
Hazard Identification Number (ADR/RID): 80
Tunnel restriction code: (E)

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

15. REGULATORY INFORMATION

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

National regulations:

Health and Safety at Work etc. Act 1974 (as amended).
Control of Substances Hazardous to Health Regulations 2002 (as amended).
EH40/2005 Workplace exposure limits.
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

EU legislation:

COMMISSION REGULATION (EU) 2015/830 of 28 May 2015.
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

[cont...]

SAFETY DATA SHEET
Aluminium Chloride Granules

Issued: 12/07/2016

Page 9

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Guidance:

Workplace Exposure Limits EH40.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

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:

H314 Causes severe skin burns and 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.