

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Aluminium chloride hexahydrate pure crystalline

Revision date: 19.05.2023

Product code: 15179

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#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

Aluminium chloride hexahydrate pure crystalline

Substance name: Aluminium chloride hexahydrate  
REACH Registration Number: 01-2119459371-39-XXXX  
CAS No: 7784-13-6  
EC No: 231-208-1

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

###### Use of the substance/mixture

Laboratory chemical  
Industrial uses: Uses of substances as such or in preparations at industrial sites  
Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

###### Uses advised against

Do not use for private purposes (household).

##### 1.3. Details of the supplier of the safety data sheet

Company name: AnalytiChem GmbH  
Street: Stempelstraße 6  
Place: D-47167 Duisburg  
Telephone: 0203/5194-0  
E-mail: info@analytichem.de  
Contact person: Abteilung Produktsicherheit  
E-mail: produktsicherheit@analytichem.de  
Internet: www.analytichem.de  
Responsible Department: Abteilung Produktsicherheit

Telefax: 0203/5194-290

Telephone: 0203/5194-107/117

##### 1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

##### Further Information

No data available

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Regulation (EC) No 1272/2008

Skin Irrit. 2; H315  
Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

##### 2.2. Label elements

###### Regulation (EC) No 1272/2008

Signal word: Warning

Pictograms:



###### Hazard statements

H315 Causes skin irritation.

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H319 Causes serious eye irritation.

**Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337+P313 If eye irritation persists: Get medical advice/attention.

**2.3. Other hazards**

No data available

**SECTION 3: Composition/information on ingredients**

**3.1. Substances**

Sum formula:  $AlCl_3 \cdot 6 H_2O$

Molecular weight: 241,43 g/mol

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7784-13-6	Aluminium chloride hexahydrate			100 %
	231-208-1		01-2119459371-39-XXXX	
	Skin Irrit. 2, Eye Irrit. 2; H315 H319			

Full text of H and EUH statements: see section 16.

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

No data available

**After inhalation**

Provide fresh air.

**After contact with skin**

Wash immediately with: Water  
 Take off immediately all contaminated clothing and wash it before reuse.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

**After ingestion**

Rinse mouth immediately and drink plenty of water.  
 Call a physician immediately.

**4.2. Most important symptoms and effects, both acute and delayed**

Irritant  
 Vomiting

**4.3. Indication of any immediate medical attention and special treatment needed**

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No data available

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

###### **Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

###### **Unsuitable extinguishing media**

no restriction

##### 5.2. Special hazards arising from the substance or mixture

Non-combustible solids

Hazardous combustion products

In case of fire may be liberated: Hydrogen chloride (HCl)

##### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

##### **Additional information**

Suppress gases/vapours/mists with water spray jet.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

#### SECTION 6: Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

###### **For non-emergency personnel**

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Do not breathe dust/fume/gas/mist/vapours/spray.

###### **For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

##### 6.2. Environmental precautions

Do not empty into drains.

##### 6.3. Methods and material for containment and cleaning up

###### **For containment**

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Take up carefully when dry. Take up dust-free and set down dust-free.

###### **For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

###### **Other information**

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

##### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

#### SECTION 7: Handling and storage

##### 7.1. Precautions for safe handling

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#### Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used.  
Avoid dust formation.  
Do not breathe dust. Read label before use.  
Keep away from: Water  
After contact with water: Formation of: Hydrochloric acid

#### Advice on protection against fire and explosion

No special fire protection measures are necessary.

#### Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.  
Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

#### Further information on handling

Take off contaminated clothing. Draw up and observe skin protection programme.  
Wash hands and face before breaks and after work and take a shower if necessary.  
Take off immediately all contaminated clothing and wash it before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep container tightly closed.  
Store in a dry place.

##### Further information on storage conditions

storage temperature +15°C +25°C

#### 7.3. Specific end use(s)

Laboratory chemicals

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### 8.2. Exposure controls

##### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.  
Provide adequate ventilation as well as local exhaustion at critical locations.

##### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Suitable eye protection: goggles.

##### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact

Trade name/designation KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: > 480 min

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By short-term hand contact  
Trade name/designation KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet (>, <)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

#### Skin protection

Wear suitable protective clothing.  
acid-resistant

#### Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.  
Filtering device with filter or ventilator filtering device of type: P1

#### Environmental exposure controls

Do not empty into drains.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	solid
Colour:	colourless
Odour:	odourless
Odour threshold:	No data available
Melting point/freezing point:	100 °C
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	not determined not applicable
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	X
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value (at 20 °C):	2,5 (50 g/l)
Viscosity / kinematic:	No data available
Water solubility: (at 20 °C)	1330 g/L
Solubility in other solvents	No data available
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapour pressure:	No data available
Density:	2,4 g/cm <sup>3</sup>
Bulk density:	800 kg/m <sup>3</sup>
Relative vapour density:	No data available
Particle characteristics:	No data available

### 9.2. Other information

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**Information with regard to physical hazard classes**

Explosive properties

No data available

Sustaining combustion:

No data available

Self-ignition temperature

Solid:

not determined

Gas:

not applicable

Oxidizing properties

Not oxidising.

**Other safety characteristics**

Evaporation rate:

not determined

Solvent separation test:

No data available

Solvent content:

No data available

Solid content:

100%

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

No data available:

Viscosity / dynamic:

No data available

Flow time:

No data available

**Further Information**

No data available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

No data available

**10.3. Possibility of hazardous reactions**

Water

Alcohol

Alkali metals

Alkaline earth metal

Oxidising agent

Phenols

Alkali (lye)

**10.4. Conditions to avoid**

heat.

**10.5. Incompatible materials**

Metal

**10.6. Hazardous decomposition products**

In case of fire may be liberated: Hydrogen chloride (HCl)

**Further information**

No data available

**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Toxicokinetics, metabolism and distribution**

No data available

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#### Acute toxicity

Based on available data, the classification criteria are not met.

#### Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

#### Sensitising effects

Based on available data, the classification criteria are not met.

#### Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

#### STOT-single exposure

Based on available data, the classification criteria are not met.

#### STOT-repeated exposure

Based on available data, the classification criteria are not met.

#### Aspiration hazard

Based on available data, the classification criteria are not met.

#### Information on likely routes of exposure

No data available

#### Specific effects in experiment on an animal

No data available

#### Additional information on tests

No data available

#### Practical experience

No data available

#### 11.2. Information on other hazards

##### Other information

see also Section 4

##### Further information

No data available

### SECTION 12: Ecological information

#### 12.1. Toxicity

No data available

#### 12.2. Persistence and degradability

The product has not been tested.

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### 12.4. Mobility in soil

The product has not been tested.

#### 12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

#### 12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

#### 12.7. Other adverse effects

After contact with water: Formation of: Hydrochloric acid

##### Further information

Discharge into the environment must be avoided.

Do not allow to enter into surface water or drains.

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Do not allow to enter into surface water or drains.

Send to a physico-chemical treatment facility under observation of official regulations.

#### Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".

## SECTION 14: Transport information

### Land transport (ADR/RID)

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

### Inland waterways transport (ADN)

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

### Marine transport (IMDG)

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

### 14.6. Special precautions for user

Warning: strongly corrosive.

### 14.7. Maritime transport in bulk according to IMO instruments

not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water



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#### **15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out.

### **SECTION 16: Other information**

#### **Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Skin Irrit: Skin irritation

Eye Irrit: Eye irritation

#### **Relevant H and EUH statements (number and full text)**

H315 Causes skin irritation.

H319 Causes serious eye irritation.