

# OTTO CHEMIE PVT LTD

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ISO 9001: 2015

## MATERIAL SAFETY DATA SHEET

### SECTION 1 Product identifiers

Product name : Aluminium chloride, anhydrous, 99.985%

Product Code: A 4718

CAS-No. : 7446-70-0

### SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin corrosion (Sub-category 1B), H314

Serious eye damage (Category 1), H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal Word

Danger

Hazard statement(s)

H314

Causes severe skin burns and eye damage.

Precautionary statement(s)

P260

Do not breathe dust.

P280

Wear protective gloves/ protective clothing/ eye protection/ face protection.

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 + P310

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P363

Wash contaminated clothing before reuse.

Supplemental Hazard information (EU)

EUH014

Reacts violently with water.

EUH071

Corrosive to the respiratory tract.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Reacts violently with water.

Reacts violently with water.

### SECTION 3: Composition/information on ingredients

3.1 Substances

Formula :  $AlCl_3$

Molecular weight : 133,34 g/mol

CAS-No. : 7446-70-0

EC-No. : 231-208-1

Component	Classification	Concentration
aluminium(III) chloride, anhydrous		
CAS-No. 7446-70-0 EC-No. 231-208-1	Skin Corr. 1B; Eye Dam. 1; H314, H318	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

### SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with

water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

## **SECTION 5: Firefighting measures**

5.1 Extinguishing media

Suitable extinguishing media

Dry powder Sand

Unsuitable extinguishing media

Foam Water

5.2 Special hazards arising from the substance or mixture

Hydrogen chloride gas

Aluminum oxide

Not combustible.

May not get in touch with: Water

Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact.

Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

## **SECTION 7: Handling and storage**

7.1 Precautions for safe handling

Advice on safe handling

Keep workplace dry. Do not allow product to come into contact with water.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry.

Never allow product to get in contact with water during storage.

Store under inert gas. Vent periodically. Handle and open container with care. Reacts violently with water.

Storage class

Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Ingredients with workplace control parameters

### 8.2 Exposure controls

#### Personal protective equipment

##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

##### Skin protection

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](http://www.kcl.de)).

##### Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

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](http://www.kcl.de)).

##### Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

##### Body Protection

Acid-resistant protective clothing

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Control of environmental exposure

Do not let product enter drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Physical state	solid
b) Color	No data available
c) Odor	stinging
d) Melting point/freezing point	Melting point/range: 190 °C - lit. 181,2 °C at 1.013 hPa - (ECHA)
e) Initial boiling point and boiling range	
f) Flammability (solid, gas)	The product is not flammable.
g) Upper/lower flammability or explosive limits	No data available
h) Flash point	Not applicable
i) Autoignition temperature	No data available
j) Decomposition temperature	No data available
k) pH	2,4 at 100 g/l at 20 °C
l) Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available 450 g/l at 20 °C - (decomposition)
m) Water solubility	450 g/l at 20 °C - (decomposition)
n) Partition coefficient: n-octanol/water	Not applicable for inorganic substances
o) Vapor pressure	1 hPa at 20 °C
p) Density	2,44 g/cm <sup>3</sup> at 20 °C
Relative density	No data available

q) Relative vapor density No data available  
r) Particle characteristics No data available  
s) Explosive properties No data available  
t) Oxidizing properties none  
9.2 Other safety information  
No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Reacts violently with water.

### 10.2 Chemical stability

sensitive to moisture

### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

Water

alkenes

Alcohols

Alkali metals

Alkaline earth metals

Ethylene oxide

halogen oxides

Oxidizing agents

organic nitro compounds

phenols

Bases

### 10.4 Conditions to avoid

Moisture.

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 3.450 mg/kg

Remarks: (RTECS)

Inhalation: No data available

LD50 Dermal - Rabbit - > 2.000 mg/kg

Remarks: (RTECS)

Skin corrosion/irritation

Skin - Human

Result: Causes burns.

Remarks: (IUCLID)

Skin - In vitro study

Result: Corrosive

(OECD Test Guideline 435)

Serious eye damage/eye irritation

Causes serious eye damage.

Eyes - Human

Result: Causes burns.

Remarks: (IUCLID)

Respiratory or skin sensitization

Patch test: - Human

Result: negative

Remarks: (IUCLID)

Sensitisation test: - Guinea pig

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: In vivo micronucleus test

Species: Rat

Cell type: Bone marrow

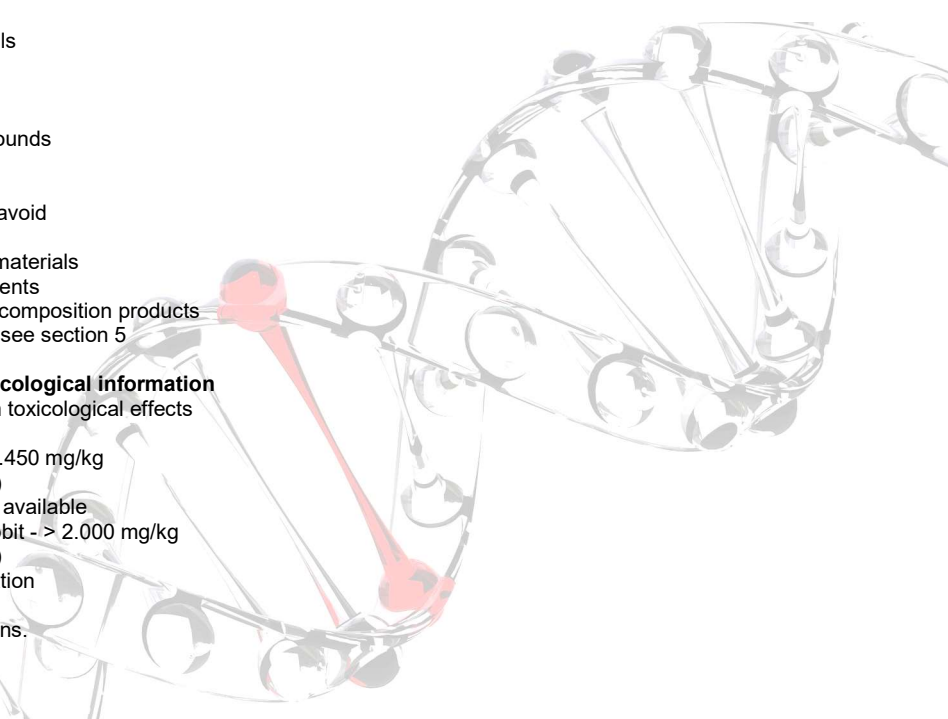
Application Route: Oral

Method: OECD Test Guideline 474

Result: negative

Remarks: (in analogy to similar products)

Carcinogenicity



No data available  
Reproductive toxicity  
No data available  
Specific target organ toxicity - single exposure  
No data available  
Specific target organ toxicity - repeated exposure  
No data available  
Aspiration hazard  
No data available

#### 11.2 Additional Information

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Repeated dose toxicity - Rat - male and female - Oral - NOAEL (No observed adverse effect level) - 1.000 mg/kg

RTECS: BD0525000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, prolonged or repeated exposure can cause., Damage to the lungs.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### SECTION 12: Ecological information

#### 12.1 Toxicity

Toxicity to daphnia  
and other aquatic  
invertebrates

static test EC50 - Daphnia magna (Water flea) - 27,3 mg/l - 48 h  
(EG 84/449)

Remarks: (ECHA)

Toxicity to bacteria EC10 - activated sludge - > 1.000 mg/l - 180 min  
(OECD Test Guideline 209)

#### 12.2 Persistence and degradability

Not applicable for inorganic substances

#### 12.3 Bioaccumulative potential

No data available

#### 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### 12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### 12.7 Other adverse effects

No data available

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

No data available

### SECTION 14: Transport information

#### 14.1 UN number

ADR/RID: 1726

IMDG: 1726

IATA: 1726

#### 14.2 UN proper shipping name

ADR/RID: ALUMINIUM CHLORIDE, ANHYDROUS

IMDG: ALUMINIUM CHLORIDE, ANHYDROUS

IATA: Aluminium chloride, anhydrous

14.3 Transport hazard class(es)		
ADR/RID: 8	IMDG: 8	IATA: 8
14.4 Packaging group		
ADR/RID: II	IMDG: II	IATA: II
14.5 Environmental hazards		
ADR/RID: yes	IMDG Marine pollutant: yes	IATA: no
14.6 Special precautions for user		
No data available		

#### SECTION 15: Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

: OTHER HAZARDS

Other regulations

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

#### Section 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

