

Safety Data Sheet

Aluminium chloride anhydrous ground

Revision date : 2025/07/17

Version: 8.0

Page: 1/12

(30041207/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

Aluminium chloride anhydrous ground

Recommended use of the chemical and restriction on use

Recommended use*: Chemical

Recommended use*: Intermediate; catalyst; process chemical

Suitable for use in industrial sector: chemical industry

Unsuitable for use: Not intended for sale to or use by the general public.

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF CORPORATION

100 Park Avenue

Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family: No data available.

2. Hazards Identification

According to Regulation 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Skin Corr.

1B

Skin corrosion

Eye Dam.

1

Serious eye damage

Label elements

Safety Data Sheet

Aluminium chloride anhydrous ground

Revision date: 2025/07/17

Version: 8.0

Page: 2/12

(30041207/SDS_GEN_US/EN)

Pictogram:



Signal Word:

Danger

Hazard Statement:

H314 Causes severe skin burns and eye damage.

Precautionary Statements (Prevention):

P280 Wear protective gloves, protective clothing and eye protection or face protection.

P260 Do not breathe dust.

P264 Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or physician.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P363 Wash contaminated clothing before reuse.

Precautionary Statements (Storage):

P405 Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents/container in accordance with local regulations.

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

Labeling of special preparations (GHS):

Reacts violently with water. Corrosive to the respiratory tract.

3. Composition / Information on Ingredients

According to Regulation 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

aluminium chloride

CAS Number: 7446-70-0

Content (W/W): > 80.0 - <= 100.0%

Synonym: Aluminium trichloride

The actual concentration is withheld as a trade secret.

Safety Data Sheet

Aluminium chloride anhydrous ground

Revision date: 2025/07/17
Version: 8.0

Page: 3/12
(30041207/SDS_GEN_US/EN)

4. First-Aid Measures

Description of first aid measures

General advice:

Immediately remove contaminated clothing. Immediate medical attention required.

If inhaled:

Keep patient calm, remove to fresh air. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

Seek medical attention.

If on skin:

Flush with copious amounts of water for at least 15 minutes. Seek medical attention.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Seek medical attention.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: skin corrosion, irritates the eyes and respiratory tract

Hazards: No hazard is expected under intended use and appropriate handling.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment:	Treat according to symptoms (decontamination, vital functions), no known specific antidote.
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5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
dry powder

Unsuitable extinguishing media for safety reasons:
water

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

The substances/groups of substances mentioned can be released if the product is involved in a fire.

Advice for fire-fighters

Safety Data Sheet

Aluminium chloride anhydrous ground

Revision date: 2025/07/17
Version: 8.0

Page: 4/12
(30041207/SDS_GEN_US/EN)

Protective equipment for fire-fighting:
Wear a self-contained breathing apparatus.

Further information:

Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Breathing protection required.

Environmental precautions

Due to the pH-value of the product, neutralization is generally required before discharging sewage into treatment plants.

Methods and material for containment and cleaning up

For large amounts: Sweep/shovel up. Dispose of absorbed material in accordance with regulations.
For residues: Rinse away with water.
Avoid raising dust.

7. Handling and Storage

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Keep container tightly sealed. Before opening venting of container is recommended; beware of escaping gases and vapours. Avoid dust formation. Breathing must be protected when large quantities are decanted without local exhaust ventilation.

Protection against fire and explosion:
The substance/product is non-combustible.

Conditions for safe storage, including any incompatibilities

Suitable materials for containers: glass, enamelled, Carbon steel (Iron), polyvinylchloride (PVC), Stainless steel 1.4301 (V2)

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place. Keep container dry.

Storage stability:
Product is hygroscopic.
Improper storage may result in pressure build up in the drums.

8. Exposure Controls/Personal Protection

Advice on system design:

Provide local exhaust ventilation to control dust.

Safety Data Sheet

Aluminium chloride anhydrous ground

Revision date: 2025/07/17

Version: 8.0

Page: 5/12

(30041207/SDS_GEN_US/EN)

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Observe OSHA regulations for respirator use (29 CFR 1910.134).

Hand protection:

Chemical resistant protective gloves should be worn to prevent all skin contact., Suitable materials may include, polyvinylchloride (Pylox), nitrile rubber (Buna N), Consult with glove manufacturer for testing data., Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Tightly fitting safety goggles (chemical goggles) and face shield.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Eye wash fountains and safety showers must be easily accessible. Take off immediately all contaminated clothing. Hands and/or face should be washed before breaks and at the end of the shift.

9. Physical and Chemical Properties

Physical state:	solid	
Form:	powder	
Odour:	pungent	
Odour threshold:	Not determined due to potential health hazard by inhalation.	
Colour:	yellowish	
pH value:	2.4 (100 g/l)	(OECD Guideline 122)
Melting point:	190 °C (2,500 hPa)	
Freezing point:	No data available.	
Boiling point:	(1,013.25 hPa) Study scientifically not justified., Sublimation	
Sublimation temperature:	181.2 °C (1,013.25 hPa) Literature data.	
Flash point:	not applicable, the product is a solid	
Flammability:	not highly flammable	(Regulation 440/2008/EC, A.10)
Lower explosion limit:	For solids not relevant for classification and labelling.	
Upper explosion limit:	For solids not relevant for classification and labelling.	

Safety Data Sheet

Aluminium chloride anhydrous ground

Revision date: 2025/07/17

Version: 8.0

Page: 6/12

(30041207/SDS_GEN_US/EN)

Autoignition:	not determined	
Vapour pressure:	< 1 mbar (20 °C) Literature data.	
Density:	2.44 g/cm ³ (25 °C) Literature data.	
Relative density:	2.48 Literature data.	(other)
Bulk density:	1,200 kg/m ³ 1,200 kg/m ³	
Relative vapour density:	The product is a non-volatile solid.	
Partitioning coefficient n-octanol/water (log Pow):	Study scientifically not justified.	
Self-ignition temperature:	Based on its structural properties the product is not classified as self-igniting. not self-igniting	(Regulation 440/2008/EC, A.16)
Thermal decomposition:	No decomposition if correctly stored and handled.	
Viscosity, dynamic:	Study scientifically not justified.	
Viscosity, kinematic:	not applicable, the product is a solid	
Solubility in water:	450 g/l (20 °C) Literature data.	
Solubility (quantitative):	No data available.	
Solubility (qualitative):	No data available.	
Molecular weight:	133.34 g/mol	
Evaporation rate:	not applicable, The product is a non-volatile solid.	
<u>Particle characteristics</u>		
Particle size distribution:	10.0 µm 118.0 µm 430.0 µm	(D10, ISO 13320-1) (D90, ISO 13320-1) (D50, ISO 13320-1)
Particle size distribution:	fine particles	

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrodes metals in the presence of water or moisture.

Oxidizing properties:

not fire-propagating (Regulation 440/2008/EC, A.17)

Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.
	Method:	Flammability (Contact with water)

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Safety Data Sheet

Aluminium chloride anhydrous ground

Revision date: 2025/07/17

Version: 8.0

Page: 7/12

(30041207/SDS_GEN_US/EN)

Possibility of hazardous reactions

Reacts violently with water. Develops hydrochloric acid (HCL) on contact with water. The formation of gaseous decomposition products builds up pressure in tightly closed containers.

Conditions to avoid

Avoid humidity.

Incompatible materials

water

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: Hydrogen chloride, The substances/substance groups mentioned are formed by hydrolysis.

Thermal decomposition:

No decomposition if correctly stored and handled.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: The toxicity of the product is based on its corrosivity.

Of low toxicity after single ingestion.

Oral

Type of value: LD50

Species: rat (male/female)

Value: 3,450 - 3,470 mg/kg

Inhalation

Study does not need to be conducted.

Dermal

Study does not need to be conducted.

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure. The toxicity of the product is based on its corrosivity.

Irritation / corrosion

Assessment of irritating effects: Corrosive! Damages skin and eyes.

Skin

Safety Data Sheet

Aluminium chloride anhydrous ground

Revision date: 2025/07/17
Version: 8.0

Page: 8/12
(30041207/SDS_GEN_US/EN)

The European Union (EU) has classified this substance with 'Causes burns.'

Eye

Study does not need to be conducted.

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Guinea pig maximization test

Species: guinea pig

Result: Non-sensitizing.

Aspiration Hazard

not applicable

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The substance may cause damage to the upper respiratory tract after repeated inhalation, as shown in animal studies. After repeated administration the prominent effect is the induction of corrosion.

The substance may cause damage to the upper respiratory tract after repeated inhalation, as shown in animal studies. The results are preliminary and do not provide a complete understanding of the effect observed.

Genetic toxicity

Assessment of mutagenicity: No mutagenic effect was found in various tests with microorganisms and mammals. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity: No reliable data was available concerning carcinogenic activity. The chemical structure does not suggest a specific alert for such an effect.

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Teratogenicity

Assessment of teratogenicity: The potential to cause toxicity to development cannot be excluded when given in high doses. The product has not been tested. The statement has been derived from the structure of the product.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

The effect strongly depends on the pH-value. EU-classification

Toxicity to fish

LC50 (96 h) 20.3 mg/l, Pimephales promelas (EPA 72-1, semistatic)

Safety Data Sheet

Aluminium chloride anhydrous ground

Revision date: 2025/07/17

Version: 8.0

Page: 9/12

(30041207/SDS_GEN_US/EN)

Aquatic invertebrates

EC50 (48 h) 27.3 mg/l, Daphnia magna (Directive 84/449/EEC, C.2, static)

The details of the toxic effect relate to the nominal concentration.

Aquatic plants

EC50 (72 h) 1.05 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static) other TS

EC10 (72 h) 0.16 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static) other TS

Chronic toxicity to fish

No observed effect concentration (7 d) 0.16 mg/l, Pimephales promelas (other, semistatic)

Chronic toxicity to aquatic invertebrates

No observed effect concentration (6 d) 0.34 mg/l, Ceriodaphnia dubia (other, semistatic)

Assessment of terrestrial toxicity

No toxic effects have been observed in studies with soil living organisms.

Soil living organisms

Toxicity to soil dwelling organisms:

LC50 (14 d) > 1,000 mg/kg, Eisenia sp. (Range-finding-study, artificial soil)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Toxicity to terrestrial plants

No data available.

Other terrestrial non-mammals

No data available.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

OECD Guideline 209 aerobic

activated sludge, domestic, non-adapted/EC10 (180 min): > 1,000 mg/l

The details of the toxic effect relate to the nominal concentration.

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

Inorganic product which cannot be eliminated from water by biological purification processes.

Elimination from water by precipitation or flocculation.

Elimination information

not applicable

Assessment of stability in water

In contact with water the substance will hydrolyse rapidly.

Information on Stability in Water (Hydrolysis)

Safety Data Sheet

Aluminium chloride anhydrous ground

Revision date: 2025/07/17
Version: 8.0

Page: 10/12
(30041207/SDS_GEN_US/EN)

not applicable

Bioaccumulative potential

Assessment bioaccumulation potential

Significant accumulation in organisms is not to be expected.

Bioaccumulation potential

Bioconcentration factor: 400 - 1,365, Fish (other)

Bioconcentration factor: 40 - 1,326 (30 d), *Salvelinus fontinalis* (other)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Mobility in soil

Assessment transport between environmental compartments

No data available.

Additional information

Other ecotoxicological advice:

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

13. Disposal considerations

Waste disposal of substance:

Check for possible recycling. Contact waste centre regarding recycling.

Container disposal:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

RCRA: D001

This product is regulated by RCRA.

D003

This product is regulated by RCRA.

14. Transport Information

Land transport

USDOT

Hazard class: 8

Packing group: II

ID number: UN 1726

Hazard label: 8

Proper shipping name: ALUMINIUM CHLORIDE, ANHYDROUS

Sea transport

IMDG

Hazard class: 8

Packing group: II

ID number: UN 1726

Safety Data Sheet

Aluminium chloride anhydrous ground

Revision date: 2025/07/17
Version: 8.0

Page: 11/12
(30041207/SDS_GEN_US/EN)

Hazard label: 8
Marine pollutant: NO
Proper shipping name: ALUMINIUM CHLORIDE, ANHYDROUS

Air transport

IATA/ICAO
Hazard class: 8
Packing group: II
ID number: UN 1726
Hazard label: 8
Proper shipping name: ALUMINIUM CHLORIDE, ANHYDROUS

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US

All substances are TSCA listed and active.

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

State regulations

State RTK

	<u>CAS Number</u>	<u>Chemical name</u>
NJ	7446-70-0	aluminium chloride
PA	7446-70-0	aluminium chloride

NFPA Hazard codes:

Health: 3 Fire: 1 Reactivity: 1 Special: -W-

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Acute Tox.	5 (oral)	Acute toxicity
Skin Corr.	1B	Skin corrosion
Eye Dam.	1	Serious eye damage

16. Other Information

SDS Prepared by:

BASF NA Product Regulations
SDS Prepared on: 2025/07/17

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Safety Data Sheet

Aluminium chloride anhydrous ground

Revision date: 2025/07/17

Version: 8.0

Page: 12/12

(30041207/SDS_GEN_US/EN)

operations on society and the environment during production, storage, transport, use and disposal of our products.

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Date / Revised: 2025/07/17

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Previous version: 7.1

END OF DATA SHEET