

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

**ALUMINIUM CHLORIDE ANHYDROUS
98.0% EXTRA PURE**
CAS-No.: 7446-70-0
Product Code: 00117
Molecular Formula: AlCl_3

MATERIAL SAFETY DATA SHEET (SDS/MSDS)**ALUMINIUM CHLORIDE ANHYDROUS 98.0%****EXTRA PURE****CAS-No.: 7446-70-0****Chemnovo**
DRIVEN BY CHEMISTRY. DEFINED BY PRECISION**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form : Substance
Trade name : Aluminium Chloride Anhydrous 98.0% Extra Pure
EC-No. : 231-208-1
CAS No : 7446-70-0

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Industrial/Professional use spec : Industrial For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Company : Chemnovo Synthesis Pvt Ltd.
N-226 Near Kumbhavali Naka
Tarapur MIDC, Boisar-401 506
Palghar, Maharashtra
Telephone : +91 7400096089
Email: export@chemnovo.in

1.4. Emergency telephone number

Emergency number : + 91 7400096089 (9:00am - 6:00 pm)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, H314

Category 1B

Full text of H statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

C; R34

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

Signal word (CLP)	:	Danger
Hazard statements (CLP)	:	H314 - Causes severe skin burns and eye damage
Precautionary statements (CLP)	:	P280 - Wear protective gloves, protective clothing, eye protection, face protection. 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 doctor.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients**3.1. Substance**

Name	:	Aluminium Chloride Anhydrous 98.0% Extra Pure
CAS No	:	7446-70-0
EC-No.	:	231-208-1

Full text of R- and H-statements: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures**4.1. Description of first aid measures**

First-aid measures after inhalation	:	Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
First-aid measures after skin contact	:	Get medical advice/attention. Wash with plenty of water/....
First-aid measures after eye contact	:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	:	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor

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

Symptoms/effects	:	Causes severe skin burns and eye damage.
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4.3. Indication of any immediate medical attention and special treatment needed

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Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry powder.
Unsuitable extinguishing media : Do not use extinguishing media containing water.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighter

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.
Emergency procedures : Ventilate area

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. On land, sweep or shovel into suitable containers.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe vapours. Provide good ventilation in process area to prevent formation of vapour.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep container tightly closed.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Hand protection	:	Protective gloves
Eye protection	:	Chemical goggles or safety glasses
Skin and body protection	:	Wear suitable protective clothing
Respiratory protection	:	[In case of inadequate ventilation] wear respiratory protection.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	:	Solid
Molecular mass	:	133.34 g/mol
Colour	:	Yellow Crystals
Odour	:	strong hydrogen chloride odor.
Odour threshold	:	No data available
pH	:	2.4
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	190 °C
Freezing point	:	No data available
Boiling point	:	187.7 °C
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	< 1.33 hPa at 20 °C
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Density	:	2.44 g/cm ³
Solubility	:	Water: Soluble in water
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

Thermal decomposition generates : Corrosive vapours.

10.2. Chemical stability

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Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Direct sunlight. Air contact. Moisture.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Thermal decomposition generates : Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	Not classified
Skin corrosion/irritation	:	Causes severe skin burns and eye damage
pH	:	2.4
Serious eye damage/irritation	:	Serious eye damage, category 1, implicit
pH	:	2.4
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
STOT-single exposure	:	Not classified
STOT-repeated exposure	:	Not classified
Aspiration hazard	:	Not classified

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / AND

14.1. UN number

UN-No. (ADR)	:	1726
UN-No. (IMDG)	:	1726
UN-No.(IATA)	:	1726
UN-No.(AND)	:	1726
UN-No. (RID)	:	1726

14.2. UN proper shipping name

Proper Shipping Name (ADR)	:	ALUMINIUM CHLORIDE, ANHYDROUS
Proper Shipping Name (IMDG)	:	ALUMINIUM CHLORIDE, ANHYDROUS
Proper Shipping Name (IATA)	:	ALUMINIUM CHLORIDE, ANHYDROUS
Proper Shipping Name (ADN)	:	ALUMINIUM CHLORIDE, ANHYDROUS
Proper Shipping Name (RID)	:	ALUMINIUM CHLORIDE, ANHYDROUS
Transport document description (ADR):		UN 1726 ALUMINIUM CHLORIDE, ANHYDROUS, 8, II, (E)
Transport document description (IMDG)		UN 1726 ALUMINIUM CHLORIDE, ANHYDROUS, 8, II
Transport document description (IATA)		UN 1726 ALUMINIUM CHLORIDE, ANHYDROUS, 8, II
Transport document description (ADN)		UN 1726 ALUMINIUM CHLORIDE, ANHYDROUS, 8, II
Transport document description (RID) :		UN 1726 ALUMINIUM CHLORIDE, ANHYDROUS, 8, II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	:	8
Danger labels (ADR)	:	8



IMDG

Transport hazard class(es) (IMDG)	:	8
Danger labels (IMDG)	:	8



IATA

Transport hazard class(es) (IATA) : 8
Hazard labels (IATA) : 8



AND

Transport hazard class(es) (ADN) : 8
Danger labels (AND) : 8



RID

Transport hazard class(es) (RID) : 8
Danger labels (RID) : 8



14.4. Packing group

Packing group (ADR) : II
Packing group (IMDG) : II

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Packing group (IATA)	:	II
Packing group (ADN)	:	II
Packing group (RID)	:	II

14.5. Environmental hazards

Dangerous for the environment	:	No
Marine pollutant	:	No
Other information	:	No supplementary information available

14.6. Special precautions for user**- Overland transport**

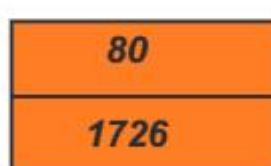
Classification code (ADR)	:	C2
Special provisions (ADR)	:	588
Limited quantities (ADR)	:	1kg
Excepted quantities (ADR)	:	E2
Packing instructions (ADR)	:	P002, IBC08
Special packing provisions (ADR)	:	B4
Mixed packing provisions (ADR)	:	Mp10
Portable tank and bulk container instructions (ADR)	:	T3

Portable tank and bulk container special provisions (ADR)

Tank code (ADR)	:	SGAN
Vehicle for tank carriage	:	AT

Transport category (ADR)

Special provisions for carriage - Packages (ADR)	:	V11
Hazard identification number (Kemler No.)	:	80

Orange plates

Tunnel restriction code (ADR)	:	E
EAC code	:	4W

- Transport by sea

Special provisions (IMDG)	:	937
Packing instructions (IMDG)	:	P002
IBC packing instructions (IMDG)	:	IBC08
IBC special provisions (IMDG)	:	B21, B4
Tank instructions (IMDG)	:	T3
Tank special provisions (IMDG)	:	Tp33
EmS-No. (Fire)	:	F-A
EmS-No. (Spillage)	:	S-B

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Stowage category (IMDG) :	A
Stowage and handling (IMDG) :	Sw2
Properties and observations (IMDG) :	White to yellowish hygroscopic crystals. Forms corrosive vapours in moist air. Reacts violently with water, evolving heat and hydrogen chloride, an irritating and corrosive gas apparent as white fumes. In the presence of moisture, highly corrosive to most metals. Highly irritating to skin, eyes and mucous membranes. The solid hydrated form of this substance is not subject to the provisions of this Code.
MFAG-No	137
- Air transport	
PCA Excepted quantities (IATA) :	E2
PCA Limited quantities (IATA) :	Y844
PCA limited quantity max net quantity (IATA) :	5kg
PCA packing instructions (IATA) :	859
PCA max net quantity (IATA) :	15kg
CAO packing instructions (IATA) :	863
CAO max net quantity (IATA) :	50kg
ERG code (IATA) :	8L
- Inland waterway transport	
Classification code (ADN) :	C2
Special provisions (ADN) :	588
Limited quantities (ADN) :	1 kg
Excepted quantities (ADN) :	E2
Equipment required (ADN) :	PP, EP
Number of blue cones/lights (ADN) :	0
- Rail transport	
Classification code (RID) :	C2
Special provisions (RID) :	588
Excepted quantities (RID) :	E2
Packing instructions (RID) :	P002, IBC08
Special packing provisions (RID) :	B4
Mixed packing provisions (RID) :	Mp10
Portable tank and bulk container instructions (RID) :	T3
Portable tank and bulk container special provisions (RID) :	Tp33
Tank codes for RID tanks (RID) :	SGAN
Transport category (RID) :	2
Special provisions for carriage – Packages (RID) :	W11
Colis express (express parcels) (RID) :	Ce10
Hazard identification number (RID) :	80

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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Not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. EU-Regulations**

No REACH Annex XVII restrictions

Aluminium Chloride Anhydrous 98.0% Extra Pure is not on the REACH Candidate List

Aluminium Chloride Anhydrous 98.0% Extra Pure is not on the REACH Annex XIV List

15.1.2. National regulations**Germany**

Reference to AwSV : Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to AwSV; ID No. 507)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen

The substance is not listed

SZW-lijst van mutagene stoffen :

The substance is not listed

NIET-limitatieve lijst van voor de :

The substance is not listed

voortplanting giftige stoffen - Borstvoeding

The substance is not listed

NIET-limitatieve lijst van voor de :

The substance is not listed

voortplanting giftige stoffen -

Vruchtbaarheid

NIET-limitatieve lijst van voor de :

The substance is not listed

voortplanting giftige stoffen - Ontwikkeling

Denmark

Recommendations Danish Regulation :

Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-statements:

Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H314	Causes severe skin burns and eye damage.
R34	Causes burns
C	Corrosive

MATERIAL SAFETY DATA SHEET (SDS/MSDS)**ALUMINIUM CHLORIDE ANHYDROUS 98.0%****EXTRA PURE****CAS-No.: 7446-70-0****Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Chemnovo Synthesis Pvt Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.chemnovo.in for additional terms and conditions of sale.

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