



## MATERIAL SAFETY DATA SHEETS

22

Aluminium chloride

### 1. CHEMICAL IDENTITY

**Chemical Name :** Aluminium chloride

**Chemical Classification:** Reactive

**Trade Name :**

**Synonyms:** Anhydrous Aluminium chloride, Aluminum trichloride

**Formula :** AlCl<sub>3</sub>

**CAS No:** 7446-70-0

**UN No:** 1726

### Regulated Identification

**Shipping Name :** Aluminium chloride, Anhydrous

**Hazchem Code :** 4W

**Codes / Label :** Class 8, Reactive

**Hazardous Waste ID No :** 17

HAZARDOUS INGREDIENTS	C.A.S. No.	HAZARDOUS INGREDIENTS	C.A.S. No.
1 Aluminium chloride	7446-70-0	3	
2		4	

### 2. PHYSICAL / CHEMICAL DATA

<b>Boiling Pt. °C:</b> 180 (Sublimes)	<b>Physical State:</b> Solid	<b>Appearance:</b> White when pure; ordinarily gray or yellow to greenish.
<b>Melting Pt °C:</b> 192.6	<b>Vapour Pressure @ 35°C mmHg:</b> 1 mm Hg at 100.0 °C	<b>Odour:</b> Hydrogen chloride odour.
<b>Vapour Density(Air =1):</b>	<b>Solubility in water at 30°C g/100ml:</b> Reacts (explodes)	<b>Others:</b> Soluble in alcohol and ether.
<b>Specific Gravity (Water =1 ):</b> 2.44 at 25°C(solid)		<b>pH :</b>

### 3. FIRE / EXPLOSION HAZARD DATA

**Flammability :** No

**LEL:**

**Flash Point °C in OC:**

**TDG Flammability:**

**UEL:**

**Flash Point °C in CC:**

**Autoignition Temperature °C :**

**Explosion sensitivity to impact:** Stable

**Explosion sensitivity to static Electricity:** Stable

**Hazardous Combustion Products :** Reacts violently with water, liberating hydrogen chloride gas and heat.

**Hazardous Polymerization :** Will not occur.

**Combustible Liquid:** No

**Explosive Material:** No

**Corrosive Material** Yes

**Flammable Material:** No

**Oxidiser :** No

**Others:**

**Pyrophoric Material:** No

**Organic Peroxide :** No

### 4. REACTIVITY DATA

**Chemical Stability :** Stable

**Incompatibility with other material :** With nitrobenzenes or nitrobenzene+phenol

**Reactivity :** Highly exothermic reaction with water or steam. Highly exothermic polymerisation with alkenes.

**Hazardous Reaction Products** : Highly exothermic reaction with water or steam produces toxic vapour of HCL

## 5. HEALTH HAZARD DATA

**Routes of entry:** Inhalation, skin, eyes and ingestion

### Effects of Exposure / Symptoms:

Inhalation: Causes irritation. Skin & eyes: Contact in the presence of moisture causes thermal and acid burns.

### Emergency Treatment :

**Inhalation:** Remove the victims from the exposed area to fresh air area. Kepp him quiet.

**Skin:** Wash the affected area immediately with plenty of water and soap.

**Eyes:** Irrigate with plenty of water for 15 mins. Seek medical aid immediately.

**Ingestion:** If victim is conscious have him drink water or milk. Do not induce vomiting.

**LD50 (oral-rat) mg/kg:** 3300 mg/kg

**STEL:**

**LC50 (rat) mg/kg:**

**Odour Threshold:** 1.5 ppm (8.1 mg/m<sup>3</sup>)

**Permissible Exposure Limit:**

**TLV (ACGIH) :** 10 mg/m<sup>3</sup>

NFPA Hazard	Health	Flammability	Reactivity	Special
Signals	0	3	2	W

## 6. PREVENTIVE MEASURES

**Personal Protective Equipment** : Provide face shield or fully closed goggles, rubber or plastic gloves, shoes and acid vapour canister mask in emergency. Use these equipments while on the routine job.

**Handling** : Store in a cool, dry, well ventilated place free from heat, moisture, source of ignition and strong alkaline material.

**Storage** : Do not store in direct sunlight. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from water. Keep away from organic halogens. Corrosives area. Loosen closure cautiously before opening.

**Precautions** : Avoid contact with solid or dust

## 7. EMERGENCY / FIRST AID MEASURES

### FIRE:

**Fire Extinguishing Media** : Use "alcohol" foam, dry chemical or carbon dioxide.

**Special Procedure** : Do not use water. Violent reaction may result. Extinguish fire using agent suitable, for surrounding fire. Stop flow of liquid before extinguishing fire.

**Unusual Hazards** :

### EXPOSURE: First Aid Measures:

**Inhalation:** Remove the victims from the exposed area to fresh air area. Kepp him quiet.

**Skin:** Wash the affected area immediately with plenty of water and soap.

**Eyes:** Irrigate with plenty of water for 15 mins. Seek medical aid immediately.

**Ingestion:** If victim is conscious have him drink water or milk. Do not induce vomiting.

**Antidotes / Dosages:**

### SPILLS :

**Steps To Be Taken** : Sweep and collect without making dust. Wash the surface with water and soap.

**Waste Disposal Method:** Seal all waste in vapour tight plastic bags for eventual disposal.

## 8. ADDITIONAL INFORMATION / REFERENCES

Combines with water with explosive violence and with the liberation of much heat. Keep the material tightly closed and protected from moisture.

## 9. MANUFACTURERS / SUPPLIERS DATA

<b>NAME OF FIRM :</b>	<b>Contact person</b>
<b>MAILING ADDRESS :</b>	<b>in Emergency :</b>
<b>TELEPHONE / TELEX NOS :</b>	<b>Local Bodies involved :</b>
<b>TELEGRAPHIC ADDRESS :</b>	<b>Standard Packing :</b>
<b>OTHERS :</b>	<b>Trem Card Details / Ref :</b>

## 10. DISCLAIMER

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