



# Gujarat Alkalies and Chemicals Limited

(Promoted by Govt. of Gujarat)

Regd. Office & Works : P.O. Petrochemicals – 391 346, Dist. Vadodara (Guj.) INDIA

Phone.: + 91-265-2232681, 3061200, 6540463 Fax : +91-265-2232130, 2230031

Website : www.gacl.com

## MATERIAL SAFETY DATA SHEET OF ANHYDROUS ALUMINIUM CHLORIDE

### 1. DESIGNATION OF PRODUCT AND COMPANY

Synonyms : Aluminium Tri-Chloride  
CAS No. : 7446-70-0  
Molecular Weight : 133-34  
Chemical Formula : AlCl<sub>3</sub>  
COMPANY NAME : GUJARAT ALKALIES & CHEMICALS LTD.  
PLANT & REGD. OFFICE:  
P.O. PETROCHEMICALS - 391 346  
DIST. BARODA  
INDIA

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	PERCENT HAZARDOUS
Aluminium Chloride	7446-70-0	ca 100% Yes

### 3. HAZARDOUS IDENTIFICATION

Emergency Overview

Danger ? Corrosive, causes burns to any area of contact. Water reactive

SAF-T-DATA (fm) RATINGS (provided here for your convenience)

Health Rating : 3 severe (poison)  
Flammability ratings : 0 none  
Reactivity ratings : 3 severe (water reactive)  
contact ratings : 3 severe corrosive  
Lab protective equipment : Goggles, Labcoat, vent hood, proper gloves, storage colour code, yellow creative)

Potential Health Effects

Inhalation : Inhalation of dust may irritate the respiratory tract due to corrosive nature. Symptoms include sore throat, coughing, and shortness of breath, symptoms of lung edema may be delayed and serious cases may be fatal.

Ingestion : Corrosive may cause burnings, pain in mouth and esophagus and burns to mucous membrane. May produce gastro intestinal distress withy



Dahej Complex: P.O. Dahej – 392 130, Tal. Vagra, Dist. Bharuch (Gujarat) INDIA

Phone.: +91-2647-256315/6/7 Fax: +91-2641-256220



# Gujarat Alkalies and Chemicals Limited

(Promoted by Govt. of Gujarat)

Regd. Office & Works : P.O. Petrochemicals – 391 346, Dist. Vadodara (Guj.) INDIA

Phone.: + 91-265-2232681, 3061200, 6540463 Fax : +91-265-2232130, 2230031

Website : www.gacl.com

absominal pain, nausea, vomitting  
and diarrhea

Skin Contact : Corrsive. May cause irritation or burns with  
redness and pain.

Eye Contact : Corrosive. Eye contact may cause severe pain,  
blurred vision and tissue damage.

Chronic Exposure : No information found

Aggravation of Pre-existing Condition

Person with pre-existing skin disorders or eye problems or impaired respiratory function  
may be more suscreptible to the effects of the substance.

#### 4. FIRST AID MEASURES

Inhalation : Remove to fresh air. If not breathing, give  
artificial respiration, if breathing is  
difficult, give oxygen. Call a physician.

Ingestion : Do not induce vomiting, give large amount of  
water. Never give anything by mouth to an  
unconscious person. Call a physician.

Skin Contact : In case of contact, wipe off excess material from  
skin than immediately flush skin with plenty of  
water for at least 15 minutes. Remove  
contaminated clothing and shoes, wash  
clothings before reuse. Call a physician.

Eye Contact : In case of contact, hold eyelids apart and flush  
eyes with plenty of water for atleast 15 minutes.  
Call a physician.

#### 5. FIRE FIGHTING MEASURES

Fire : Not combustibile, but may react slowly in a fire.

Explosion : Not explosive, but violent reaction will result,  
if streams of water contact large quantities.

Fire Extinguishing:  
Media : Extinguish fire in adjacent materials with dry  
chemical or foam. Do not use water.

Special Information: In the event of a fire, wear full protective  
clothing and Nilosh approved self contained



Dahej Complex: P.O. Dahej – 392 130, Tal. Vagra, Dist. Bharuch (Gujarat) INDIA

Phone.: +91-2647-256315/6/7 Fax: +91-2641-256220



# Gujarat Alkalies and Chemicals Limited

(Promoted by Govt. of Gujarat)

Regd. Office & Works : P.O. Petrochemicals – 391 346, Dist. Vadodara (Guj.) INDIA

Phone.: + 91-265-2232681, 3061200, 6540463 Fax : +91-265-2232130, 2230031

Website : www.gacl.com

breathings apparatus with full face piece operated in the pressure demand of other positive pressure mode.

## 6. ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill, wear appropriate personal protective equipment, as specified in section 8 spills. Pick up and place in a suitable container for reclamation or disposal. Using a method that does not generate dust, do not spray spills with water, structural fire fighters clothing is not adequate protection for this material. After removing material, neutralize residue with soda ash, lime or limestone. Do not flush waste to sewers or open waterways. A delay in cleanup may allow absorption of moisture from the atmosphere and may increase the difficulty of cleaning up the spill area.

## 7. HANDLING AND STORAGE

Keep in a tightly closed container. Protect from physical damage, store in a cool, dry, ventilated area, away from sources of heat, moisture and in compatibilities, storage in sprinklered building is not recommended. Containers of this material may be hazardous when empty, since, they retain product residues (dust, solids) observe all warning and precautions listed for the product.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne exposure limits:

ACGIH Threshold Limit Value (TLV) 2 mg/m<sup>3</sup> (TWA) soluble salts as Al.

Ventilation System

A system of local and/or general exhaust is recommended to keep employee exposures below the airborne, exposure limits, local exhaust ventilation is generally preferred because it can control the emission of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH documents. Industrial ventilation, a manual of recommended practices, most recent edition for details.

Personal Respirators (NIOSH Approved)

If the exposure limit is exceeded, a half face respirator with an acid gas cartridge and dust/mist filter may be worn for up to ten times, the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full face piece respirator with an acid gas cartridge and dust/mist filter may be worn up to 50 times, the exposure limit, or the maximum use concentration specified by the appropriate



Dahej Complex: P.O. Dahej – 392 130, Tal. Vagra, Dist. Bharuch (Gujarat) INDIA

Phone.: +91-2647-256315/6/7 Fax: +91-2641-256220



# Gujarat Alkalies and Chemicals Limited

(Promoted by Govt. of Gujarat)

Regd. Office & Works : P.O. Petrochemicals – 391 346, Dist. Vadodara (Guj.) INDIA

Phone.: + 91-265-2232681, 3061200, 6540463 Fax : +91-265-2232130, 2230031

Website : www.gacl.com

regulatory agency, or respirator supplier, whichever is lowest for emergencies or instances whether the air purifying respirators do not protect workers in oxygen deficient atmosphere.

## Skin Protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron, or coveralls as appropriate to prevent skin contact.

## Eye Protection

Use chemical safety goggles, maintain eye wash fountain and quick drench facilities in work area.

## 9. PHYSICAL AND CHEMICALS

Appearance	:	White to Grey or Yellow Powder
Odor	:	Strong hydrogen chloride odor
Solubility	:	Reacts violently in water.
Density	:	244@ 25C
PH	:	No information found
	:	% volatiles by volume @ 21C (70F):0
Boilint Point	:	183C (361F)
Melting Point	:	178C (352F) sublims vapor density (AIR-1). No information found.
Vapor pressure (mm Hg)	:	1@100C(212#)
Evaporation Rate	:	(BUAC=1) – No information found.

## 10. STABILITY AND REACTIVITY

Stability : Heat will contribute to instability.  
Reacts violently with water or moisture releasing toxic and corrosive hydrogen chloride fumes and heat. Old containers may explode on opening.  
Hazardous Decomposition Products:

Oxidize of the contained metal and halogen, possibly also free, or ionic halogen.

Hazardous polymerization:	:	will not occur
Incompatibilities	:	water, moist air, heat, sodium oxide, ethylene oxide, nitromethane
Conditions to avoid	:	Moisture and sunlight

## 11. TOXICOLOGICAL INFORMATION

Oral rat LD 50	:	3450 mg/kg
Oral mouse LD 50	:	1130 me/kg
Skin rabbit LD 50	:	72000 mg/kg
Ingredient	:	-NTP-Carcinogen

Known Anticipated IARC Category



Dahej Complex: P.O. Dahej – 392 130, Tal. Vagra, Dist. Bharuch (Gujarat) INDIA

Phone.: +91-2647-256315/6/7 Fax: +91-2641-256220



# Gujarat Alkalies and Chemicals Limited

(Promoted by Govt. of Gujarat)

Regd. Office & Works : P.O. Petrochemicals – 391 346, Dist. Vadodara (Guj.) INDIA

Phone.: + 91-265-2232681, 3061200, 6540463 Fax : +91-265-2232130, 2230031

Website : www.gacl.com

Aluminium Chloride (7446-70-0) No No None

## 12. ECOLOGICAL INFORMATION

Environmental Fate : Aluminium chloride hydrolyzes in water to aluminium hydroxide and hydrochloric acid  
Environmental Toxicity : No information found

## 13. DISPOSAL CONSIDERATIONS

Waste cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although, not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements, processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulation. Dispose of container and unused contents in accordance with federal.

## 14. TRANSPORT INFORMATION

Domestic (Land, D.O.T)

Proper shipping Name : Aluminium Chloride, Anhydrous  
Hazard Class : 8  
UN/NA : UN 1726  
Packing Group : II  
Information reported for product/size : 100 LB

International (Water I.M.O)

Proper shipping Name : Aluminium Chloride, Anhydrous  
Hazard Class : 8  
UN/NA : UN 1726,  
Packing Group : II

International (Air, I.C.A.O)

Proper Shipping Name : Al.Cl.An  
Hazard Class : 8  
UN/NA : UN 1726  
Packing Group : II

## 15. REGULATORY INFORMATION

Chemical Inventory Status - Part 1

Ingredient TSCA FC Japan Australia



Dahej Complex: P.O. Dahej – 392 130, Tal. Vagra, Dist. Bharuch (Gujarat) INDIA

Phone.: +91-2647-256315/6/7 Fax: +91-2641-256220



# Gujarat Alkalies and Chemicals Limited

(Promoted by Govt. of Gujarat)

Regd. Office & Works : P.O. Petrochemicals – 391 346, Dist. Vadodara (Guj.) INDIA

Phone.: + 91-265-2232681, 3061200, 6540463 Fax : +91-265-2232130, 2230031

Website : www.gacl.com

Aluminium Chloride (7446-70-0) Yes Yes Yes Yes

Chemical Inventory Status - Part 2 Canada

Ingredient Korea DSL NDSL PGIL

Al.Cl3 (7446-70-0) Yes Yes Yes Yes

Federal, State & International Regulations Part I

Ingredient SARA - 302 SARA 313  
RG TPQ LPT Chemical Catg.

Aluminiu. Cl.3. (7446-70-0) No No No No

Federal, State & International Regulations Part 2

Ingredient CERCLA RCRA 261.33 TSCA 8 (d)  
AlCl3 (7446-70-0) No No No

Chemical Weapon convention: No TSCA 12 (b) : No,  
EDTA: No, SARA 311/312, Acute : Yes, Chronic : No,  
Acute: Yes, Chronic: No, Fire : No, Pressure: No  
Reactivity : Yes (pure/solid)  
Autstralian Hazchem Code : 4X  
Position schedule : No information found

WHMIS:

This MSDS has been prepared according to the hazard criteria of the controlled product regulations (CDR) and the MSDS contains all of the information required by the CPR.

## 16. OTHER INFORMATION

NFPA Ratings : Heath : 3, flammibility : 0, Reactivity : 2, Other : Water reactive, label hazard warning : DANGER ! Corrosive causes burns to any area of contact, water reactive

Label Pecaution : Do not get in eyes, on skin, or on clothing, do not breathe, dust, keep container closed. Use with adequate ventilation, wash throughly after handling. Do not contact with water. Loosen closure cautiously because of possible gas pressure.

Label First Aid : In case of skin contact, wipe away excess material off skin and than immediately flush skin with plenty of water for atleast 15 minutes, remove



Dahej Complex: P.O. Dahej – 392 130, Tal. Vagra, Dist. Bharuch (Gujarat) INDIA

Phone.: +91-2647-256315/6/7 Fax: +91-2641-256220



# Gujarat Alkalies and Chemicals Limited

(Promoted by Govt. of Gujarat)

**Regd. Office & Works :** P.O. Petrochemicals – 391 346, Dist. Vadodara (Guj.) INDIA

**Phone.:** + 91-265-2232681, 3061200, 6540463 **Fax :** +91-265-2232130, 2230031

**Website :** www.gacl.com

contaminated clothing and shoes, wash clothing before reuse, if swallowed. Do not induce vomiting, give victim a glass of water, never give anything by mouth to an unconscious person, if inhaled, remove to fresh air, if not breathing, give artificial respiration, if breathing is difficult, give oxygen. In all cases, call a physician.

Product Use : Laboratory Reagent  
Revision Information : No changes

## DISCLAIMER

Gujarat Alkalies & Chemicals Ltd. provides the information contained herein in good faith, but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person, using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. Gujarat Alkalies & Chemicals Ltd. makes no representation or warranties, either express or implied, including without limitation any warranties of merchantability fitness. For a particular purpose, with respect to the information set forth herein or the product to which, the information refers. Accordingly, Gujarat Alkalies & Chemicals Ltd. will not be responsible for damages resulting from use of or reliance upon this information.



**Dahej Complex:** P.O. Dahej – 392 130, Tal. Vagra, Dist. Bharuch (Gujarat) INDIA

**Phone.:** +91-2647-256315/6/7 **Fax:** +91-2641-256220