

Material Safety Data Sheet

Aluminum Chloride Anhydrous

ACC# 00900

Section 1 - Chemical Product and Company Identification

MSDS Name: Aluminum Chloride Anhydrous**Catalog Numbers:** S75023, A575-100, A575-500**Synonyms:** Trichloroaluminum; Aluminum trichloride.**Company Identification:**

Fisher Scientific

1 Reagent Lane

Fair Lawn, NJ 07410

For information, call: 201-796-7100**Emergency Number:** 201-796-7100**For CHEMTREC assistance, call:** 800-424-9300**For International CHEMTREC assistance, call:** 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7446-70-0	Aluminum chloride	100	231-208-1

Hazard Symbols: C**Risk Phrases:** 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: yellow-orange to gray-white solid. **Danger!** Corrosive. Causes respiratory tract burns. Causes severe digestive tract burns. Causes eye and skin burns. Water-Reactive. Hygroscopic (absorbs moisture from the air).

Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes severe eye burns.

Skin: Causes skin burns.

Ingestion: Causes gastrointestinal tract burns. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract.

Inhalation: Causes delayed lung injury. Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma.

Chronic: Aluminum may be implicated in Alzheimer's disease. Inhalation of aluminum containing dusts may cause pulmonary disease.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: Water Reactive. Material will react with water and may release a flammable and/or toxic gas. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. Aluminum chloride reacts violently with water producing hydrochloric acid and heat. Hydrochloric acid solutions react with most metals, forming flammable hydrogen gas.

Extinguishing Media: Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide. DO NOT USE WATER! Do NOT get water inside containers.

Flash Point: Not applicable.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 2; Special Hazard: -W-

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation. Do not expose spill to water. Use water spray to reduce vapors, do not put water directly on leak, spill area or inside container.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Do not allow water to get into the container because of violent reaction. Minimize dust generation and accumulation. Loosen closure cautiously before opening. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from water. Separate from organic materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Aluminum chloride	none listed	none listed	none listed

OSHA Vacated PELs: Aluminum chloride: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Appearance: yellow-orange to gray-white

Odor: strong odor - acrid odor

pH: Acidic in solution.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 181 deg C (sublimes)

Freezing/Melting Point: 190 deg C @ 2.5atm

Decomposition Temperature: Not available.

Solubility: Reacts with water.

Specific Gravity/Density: 2.44

Molecular Formula: AlCl₃

Molecular Weight: 133.34

Section 10 - Stability and Reactivity

Chemical Stability: Stable.

Conditions to Avoid: Incompatible materials, dust generation, exposure to moist air or water, organic matter.

Incompatibilities with Other Materials: Water, organic materials, Aluminum chloride reacts violently with water producing hydrochloric acid and heat..

Hazardous Decomposition Products: Hydrogen chloride, aluminum oxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:**CAS#** 7446-70-0: BD0525000**LD50/LC50:**

CAS# 7446-70-0:

Draize test, rabbit, skin: 10%/6D (Intermittent);

Oral, mouse: LD50 = 1130 mg/kg;

Oral, rat: LD50 = 3450 mg/kg;

Skin, rabbit: LD50 = >2 gm/kg;

Carcinogenicity:

CAS# 7446-70-0: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No data available.**Teratogenicity:** See actual entry in RTECS for complete information.**Reproductive Effects:** See actual entry in RTECS for complete information.**Neurotoxicity:** No data available.**Mutagenicity:** See actual entry in RTECS for complete information.**Other Studies:** See actual entry in RTECS for complete information.

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.**RCRA U-Series:** None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	ALUMINUM CHLORIDE, ANHYDROUS				No information available.
Hazard Class:	8				
UN Number:	UN1726				
Packing Group:	II				

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 7446-70-0 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 7446-70-0: acute, chronic, reactive.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 7446-70-0 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

C

Risk Phrases:

R 34 Causes burns.

Safety Phrases:

S 28 After contact with skin, wash immediately with...

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 7/8 Keep container tightly closed and dry.

WGK (Water Danger/Protection)

CAS# 7446-70-0: 1

Canada - DSL/NDSL

CAS# 7446-70-0 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of E, F.

Canadian Ingredient Disclosure List

CAS# 7446-70-0 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits

CAS# 7446-70-0: OEL-AUSTRALIA:TWA 2 mg(AI)/m³ OEL-BELGIUM:TWA 2 mg(AI)/m³ OEL-DENMARK:TWA 2 mg(AI)/m³ OEL-FRANCE:TWA 2 mg(AI)/m³ OEL-THE NETHERLANDS:TWA 2 mg(AI)/m³ OEL-RUSSIA:TWA 2 mg(AI)/m³ OEL-SWEDEN:TWA 2 mg(AI)/m³ OEL-SWITZERLAND:TWA 2 mg(AI)/m³ OEL-UNITED KINGDOM:TWA 2 mg(AI)/m³ OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16 - Additional Information

MSDS Creation Date: 5/14/1998

Revision #3 Date: 2/26/2002

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