Material Safety Data Sheet
Aluminum chloride, anhydrous, granules, 99%

ACC# 95865

Section 1 - Chemical Product and Company Identification

MSDS Name: Aluminum chloride, anhydrous, granules, 99%
Catalog Numbers: AC195780000, AC195780010, AC195780050, AC195785000
Synonyms: Trichloroaluminum; Aluminum trichloride.
Company Identification:

Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01
For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7446-70-0	Aluminum chloride	99	231-208-1

Hazard Symbols: C
Risk Phrases: 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: yellow-beige or gray solid. **Danger!** Corrosive. Contact with skin causes irritation and possible burns, especially if the skin is wet or moist. Causes severe eye burns. Causes respiratory tract burns. Causes severe digestive tract burns. Hygroscopic (absorbs moisture from the air). Water-Reactive.
Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes severe eye burns.
Skin: Contact with skin causes irritation and possible burns, especially if the skin is wet or moist.
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. Use water with caution and in flooding amounts. Containers may explode when heated or if contaminated with water. 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. Cool containers with flooding quantities of water until well after fire is out. For large fires flood fire with water from a distance.
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. Do not expose spill to water.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Loosen closure cautiously before opening. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Do not allow contact with water.
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. Corrosives area. Loosen closure cautiously before opening. 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 general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
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 chemical goggles and a face shield.
Skin: Wear impervious gloves.
Clothing: Wear appropriate protective gloves 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-beige or gray
Odor: Strong acid odor.
pH: Not available.
Vapor Pressure: 1 mm Hg @ 100C
Vapor Density: Negligible.
Evaporation Rate: Negligible.
Viscosity: Not available.
Boiling Point: 181 deg C (sublimes)
Freezing/Melting Point:194 deg C @ 5.2atm
Decomposition Temperature: Not available.
Solubility: Reacts.
Specific Gravity/Density:2.4400g/cm3
Molecular Formula: AlCl3
Molecular Weight:133.34

Section 10 - Stability and Reactivity

Chemical Stability: Stable.
Conditions to Avoid: Dust generation, exposure to moist air or water.
Incompatibilities with Other Materials: Aluminum chloride reacts violently with water producing hydrochloric acid and heat., organic materials.
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 known effects.
Teratogenicity: May have teratogenic effects in animal studies.
Reproductive Effects: May have reproductive effects in animal studies.

Neurotoxicity: No known effects.
Mutagenicity: No known effects.
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 depletors. This material does not contain any Class 2 Ozone depletors.
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 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.
S 28A After contact with skin, wash immediately with plenty of water.

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(Al)/m3 OEL-BELGIUM:TWA 2 mg(Al)/m3 OEL-DENMARK:TWA 2 mg(Al)/m3 OEL-FRANCE:TWA 2 mg(Al)/m3 OEL-THE NETHERLANDS:TWA 2 mg(Al)/m3 OEL-RUSSIA:TWA 2 mg(Al)/m3 OEL-SWEDEN:TWA 2 mg(Al)/m3 OEL-SWITZERLAND:TWA 2 mg(Al)/m3 OEL-UNITED KINGDOM:TWA 2 mg(Al)/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: 12/02/1997
Revision #4 Date: 3/18/2003