



Material Safety Data Sheet

Aluminum chloride

MSDS# 00106

Section 1 - Chemical Product and Company Identification

MSDS Name: Aluminum chloride
Catalog Numbers: AC195780000, AC195780010, AC195780050, AC195785000, AC217460000, AC217460030, AC217460030, AC217460050, AC217461000, AC217465000, AC364810000, AC364810100, AC364810100, AC364810200, A575-100, A575-500
Synonyms: Aluminum trichloride.

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium

Company Identification: (USA) Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01

For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 7446-70-0
Chemical Name: Aluminum chloride
%: 98.5
EINECS#: 231-208-1

Hazard Symbols: C



Risk Phrases: 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Hygroscopic (absorbs moisture from the air). Causes burns by all exposure routes. Reacts violently with water. Can decompose violently at elevated temperatures. Material hydrolyzes in contact with moisture/water releasing toxic and corrosive fumes of hydrogen chloride and aqueous hydrochloric acid. Target Organs: Respiratory system, gastrointestinal system, eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes severe eye burns.

Skin: Causes skin burns. May be harmful if absorbed through the skin.

Ingestion: Causes gastrointestinal tract burns. May be harmful if swallowed.

May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing,

Inhalation: shortness of breath and pulmonary edema. Causes chemical burns to the respiratory tract. May be harmful if inhaled.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. Get medical aid immediately. Call a poison control center.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Exposure to heat may promote violent decomposition. Water reactive. Material will react with water and may release a flammable and/or toxic gas.

Extinguishing Media: Use foam, dry chemical, or carbon dioxide. DO NOT USE WATER!

Autoignition Temperature: Not available.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: ; 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. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Avoid generating dusty conditions. Provide ventilation. Do not expose spill to water. Do not get water inside containers. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Do not allow water to get into the container because of violent reaction. Minimize dust generation and accumulation. Contents may develop pressure upon prolonged storage. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Do not allow contact with water. Use only in a chemical fume hood.

Storage: Store in a cool, dry place. Do not store in direct sunlight. Store in a tightly closed container. Corrosives area. Water free area. Heat can cause thermal decomposition and pressure build-up inside containers. Store protected from moisture. Inspect periodically for damage or evidence of leaks or corrosion.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Aluminum chloride	none listed	2 mg/m3 TWA (as Al) (listed under Aluminum, soluble salts).	none listed

OSHA Vacated PELs: Aluminum chloride: 2 mg/m3 TWA (as Al, listed under Aluminum) (listed under Aluminum, soluble salts)

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Exposure Limits

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: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder

Color: yellow - fine

Odor: acrid odor - strong odor

pH: Not available

Vapor Pressure: 0.004 mbar @ 50 deg C

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: 194 deg C (381.20°F)

Decomposition Temperature: Not available

Solubility in water: Reacts

Specific Gravity/Density: 2.440

Molecular Formula: AlCl₃

Molecular Weight: 133.34

Section 10 - Stability and Reactivity

Chemical Stability: Decomposes when heated. Reacts violently with water. Moisture sensitive. Hygroscopic: absorbs moisture or water from the air.

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

Incompatibilities with Other Materials: Water, ethylene oxide, oxygen difluoride, phenols, nitro compounds (organic, e.g. nitrobenzene, nitroglycerine, picric acid, trinitrotoluene), perchloryl fluoride, benzene.

Hazardous Decomposition Products: Hydrogen chloride, carbon monoxide, carbon dioxide, aluminum oxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 7446-70-0: BD0525000

RTECS:

CAS# 7446-70-0: Draize test, rabbit, skin: 10%/6D (Intermittent);

Oral, mouse: LD50 = 1130 mg/kg;

LD50/LC50: Oral, rat: LD50 = 3450 mg/kg;

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

.

Other:

Carcinogenicity: Aluminum chloride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: ALUMINUM CHLORIDE, ANHYDROUS

Hazard Class: 8

UN Number: UN1726

Packing Group: II

Canada TDG

Shipping Name: ALUMINUM CHLORIDE ANHYDROUS

Hazard Class: 8

UN Number: UN1726

Packing Group: II

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 34 Causes burns.

Safety Phrases:

S 7/8 Keep container tightly closed and dry.

S 28A After contact with skin, wash immediately with plenty of water.

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

WGK (Water Danger/Protection)

CAS# 7446-70-0: 1

Canada

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

Canadian WHMIS Classifications: E, F

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 7446-70-0 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

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

Inventory.

Section 16 - Other Information

MSDS Creation Date: 12/02/1997

Revision #8 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
