Material Safety Data Sheet
Aluminium chloride, anhydrous, powder, 99.999%

Section 1 - Chemical Product and Company Identification
MSDS Name: Aluminium chloride, anhydrous, powder, 99.999%
Catalog Numbers: 36481-0000, 36481-0100, 36481-0200
Synonyms: Trichloroaluminum, Aluminum trichloride

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticalaan 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# Chemical Name: % EINECS#
7446-70-0 Aluminium chloride 99.999% 231-208-1

Hazard Symbols: C

Risk Phrases: 34

Section 3 - Hazards Identification
EMERGENCY OVERVIEW
Causes burns. Hygroscopic (absorbs moisture from the air). Moisture sensitive.

Potential Health Effects
Eye: Causes eye burns.
Skin: Causes skin burns.
Ingestion: Causes gastrointestinal tract burns.
May cause irritation of the respiratory tract with burning pain in the nose and
Inhalation: throat, coughing, wheezing, shortness of breath and pulmonary edema. Causes
chemical burns to the respiratory tract.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Get medical aid immediately. Immediately flush skin with plenty of water for
Skin: at least 15 minutes while removing contaminated clothing and shoes.
Ingestion: Get medical aid immediately. Do NOT induce vomiting. If conscious and
alert, rinse mouth and drink 2-4 cupfuls of milk or water.
Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air
immediately. If not breathing, give artificial respiration. If breathing is
difficult, give oxygen.

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.
Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-
Resistant foam. Water may be ineffective.

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.
Avoid generating dusty conditions.

Section 7 - Handling and Storage

Contents may develop pressure upon prolonged storage. Do not breathe dust,
Handling: vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a
chemical fume hood.
Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away
from incompatible substances. Keep away from water. Corrosives area.

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
CAS# 7446-70-0:
United Kingdom, WEL - TWA: (aluminum, soluble salts): 2 mg/m3
TWA United Kingdom, WEL - STEL: (aluminum, soluble salts): 6
mg/m3 STEL

Belgium - TWA: (aluminum, soluble salts): 2 mg/m3 VLE (as Al)
France - VME: (aluminum, soluble salts): 2 mg/m3 VME
Germany: (aluminum, soluble salts): 2 mg/m3 VME
Malaysia: (aluminum, soluble salts): 2 mg/m3 TWA (as Al)
Spain: (aluminum, soluble salts): 2 mg/m3 VLA-ED (as Al)

Personal Protective Equipment

Eyes: Wear chemical splash goggles.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149

Respirators: approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Powder
Color: white
Odor: acrid odor - strong odor
pH: Not available
Vapor Pressure: 1 mm Hg @ 100 deg C
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: 194 deg C (381.20°F)
Autoignition Temperature: Not available
Flash Point: Not available
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
Decomposition Temperature: Not available
Solubility in water: Reacts
Specific Gravity/Density: 2.4400g/cm3
Molecular Formula: AlCl3
Molecular Weight: 133.34
Section 10 - Stability and Reactivity

Chemical Stability: Stable. Moisture sensitive. Hygroscopic: absorbs moisture or water from the air.

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

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


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;

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

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Daphnia: EC50: 3.9 mg/l; 48H;
Fish: Goldfish: LC50: 100 mg/l; 12-96H;

Section 13 - Disposal Considerations

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

Section 14 - Transport Information

Shipping Name: ALUMINIUM CHLORIDE, ANHYDROUS
Hazard Class: 8
UN Number: 1726
IATA: ALUMINIUM CHLORIDE, ANHYDROUS
IMO: ALUMINIUM CHLORIDE, ANHYDROUS
RID/ADR: ALUMINIUM CHLORIDE, ANHYDROUS

Hazard Class: 8
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RID/ADR: ALUMINIUM CHLORIDE, ANHYDROUS
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

US Federal

TSCA

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

Section 16 - Other Information

MSDS Creation Date: 12/05/2002
Revision #0 Date Original.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility 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.