



Fisher Scientific

Part of Thermo Fisher Scientific

Material Safety Data Sheet

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Revision Number 2***

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Aluminium chloride	
Cat No.	AC364810000; AC364810100; AC364810200	
Synonyms	Aluminium trichloride	
Recommended Use	Laboratory chemicals	
Company Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100	Entity / Business Name Acros Organics One Reagent Lane Fair Lawn, NJ 07410	Emergency Telephone Number For information in the US, call: 001-800-ACROS-01 For information in Europe, call: +32 14 57 52 11 Emergency Number, Europe: +32 14 57 52 99 Emergency Number, US: 001-201-796-7100 CHEMTREC Phone Number, US: 001-800-424-9300 CHEMTREC Phone Number, Europe: 001-703-527-3887

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Causes severe eye and skin irritation with possible burns. Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. Water reactive***

Appearance Yellow

Physical State Solid

Odor pungent

Target Organs

Skin, Respiratory system, Eyes, Gastrointestinal tract (GI)

Potential Health Effects

Acute Effects

Principle Routes of Exposure

Eyes

Skin

Inhalation

Ingestion

Causes severe eye irritation and possible burns***

Contact causes severe skin irritation and possible burns***

May be harmful if inhaled. May cause irritation of respiratory tract***

May be harmful if swallowed***

Chronic Effects

Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed***

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions Gastrointestinal tract. Preexisting eye disorders. Skin disorders.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
Aluminum chloride	7446-70-0	>95

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point	No information available.
Method -	No information available.
Autoignition Temperature	No information available.
Explosion Limits	
Upper	No data available
Lower	No data available
Suitable Extinguishing Media	CO ₂ , dry chemical, dry sand, alcohol-resistant foam.
Unsuitable Extinguishing Media	No information available.
Hazardous Combustion Products	No information available.
Sensitivity to mechanical impact	No information available.
Sensitivity to static discharge	No information available.

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition. Water reactive.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA **Health 3** **Flammability 0***** **Instability 2***** **Physical hazards N/A**

6. ACCIDENTAL RELEASE MEASURES

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- Personal Precautions** Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
- Environmental Precautions** Should not be released into the environment.
- Methods for Containment and Clean Up** Sweep up or vacuum up spillage and collect in suitable container for disposal.

7. HANDLING AND STORAGE

- Handling** Use only under a chemical fume hood. Wear personal protective equipment. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Do not ingest.
- Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering Measures** Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.
- Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Aluminum chloride		(Vacated) TWA: 2 mg/m ³ ***	TWA: 2 mg/m ³ ***

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Aluminum chloride	TWA: 2 mg/m ³ ***	TWA: 2 mg/m ³ ***	

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection

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 and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

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

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical State** Solid
- Appearance** Yellow
- Odor** pungent
- Odor Threshold** No information available.
- pH** 2.4 100 g/L aq.sol.
- Vapor Pressure** No information available.
- Vapor Density** No information available.
- Viscosity** No information available.
- Boiling Point/Range** No information available.
- Melting Point/Range** 194°C / 381.2°F
- Decomposition temperature** No information available.
- Flash Point** No information available.
- Evaporation Rate** No information available.
- Specific Gravity** 2.440

9. PHYSICAL AND CHEMICAL PROPERTIES

Solubility	No information available.
log Pow	No data available
Molecular Weight	133.34
Molecular Formula	Al Cl ₃

10. STABILITY AND REACTIVITY

Stability	Moisture sensitive.
Conditions to Avoid	Incompatible products. Excess heat. Exposure to moist air or water.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Hydrogen chloride gas
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions .	None under normal processing..

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Aluminum chloride	380 mg/kg (Rat)***	2 g/kg (Rabbit)***	Not listed

Irritation	No information available.
Toxicologically Synergistic Products	No information available.
Chronic Toxicity	
Carcinogenicity	There are no known carcinogenic chemicals in this product
Sensitization	No information available.
Mutagenic Effects	No information available.
Reproductive Effects	No information available.
Developmental Effects	No information available.
Teratogenicity	No information available.
Other Adverse Effects	See actual entry in RTECS for complete information.
Endocrine Disruptor Information	No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

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Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Aluminum chloride	Not listed	Gambusia affinis: LC50=27.1 mg/L 97h***	Not listed	EC50: 3.9 mg/L 48h EC50: 27.3 mg/L 48h***

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

14. TRANSPORT INFORMATION

DOT

UN-No 1726***
Proper Shipping Name ALUMINUM CHLORIDE, ANHYDROUS ***
Hazard Class 8
Packing Group II

TDG

UN-No 1726***
Proper Shipping Name ALUMINUM CHLORIDE, ANHYDROUS ***
Hazard Class 8
Packing Group II

IATA

UN-No 1726
Proper Shipping Name ALUMINIUM CHLORIDE, ANHYDROUS
Hazard Class 8
Packing Group II

IMDG/IMO

UN-No 1726
Proper Shipping Name ALUMINUM CHLORIDE, ANHYDROUS
Hazard Class 8
Packing Group II

15. REGULATORY INFORMATION

International Inventories

15. REGULATORY INFORMATION											
Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Aluminum chloride	X***	X***	-	231-208-1***	-		X***	X***	X***	X***	X***

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Not applicable

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes***
Chronic Health Hazard	Yes***
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	Yes***

Clean Water Act

Not applicable

Clean Air Act

Not applicable

OSHA

Not applicable

CERCLA

Not Applicable

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Aluminum chloride	X***	X***	X***	-	X***

U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product contains the following DHS chemicals:

Component	DHS Chemical Facility Anti-Terrorism Standard
Aluminum chloride	2000 lb STQ***

Other International Regulations

Mexico - Grade No information available

Canada

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

WHMIS Hazard Class

E Corrosive material
 D2B Toxic materials ***



16. OTHER INFORMATION

Prepared By Regulatory Affairs
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Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS