

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
	<p>Corrosive to eyes and skin on contact. Environmental hazard. Harmful compound, minimize exposure. Water-reactive. May ignite or generate flammable gas in the presence of moisture. Hygroscopic -- keep container tightly sealed. Store under nitrogen.</p>	

Section I. Chemical Product and Company Identification

Chemical Name	Aluminum (III) Chloride		
Catalog Number	A1831	Supplier	TCI America 9211 N. Harborside St. Portland OR 1-800-423-8616
Synonym	Not available.		
Chemical Formula	AlCl ₃		
CAS Number	7446-70-0	In case of Emergency Call	Chemtrec® (800) 424-9300 (U.S.) (703) 527-3887 (International)

Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Aluminum (III) Chloride	7446-70-0	-----	Not available.	Rat LD ₅₀ (oral) 3450 mg/kg Rabbit LD ₅₀ (dermal) >2000 mg/kg Mouse LD ₅₀ (oral) 1130 mg/kg

Section III. Hazards Identification

Acute Health Effects	<p>Corrosive to skin, eyes, and respiratory system. Liquid or spray mist may produce tissue damage, particularly in mucous membranes of the eyes, mouth and respiratory tract. Skin contact may produce burns. Eye contact can result in corneal damage or blindness. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Corrosive materials may cause serious injury if ingested. Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.</p>
Chronic Health Effects	<p>CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY: Reproductive Effects. Rat TDLo Intraperitoneal 375 mg/kg female 9-13 days of pregnancy. TOXIC Effects: Effects on Fertility - Post-implantation mortality. Effects on Embryo or Fetus - Fetotoxicity. Rat TDLo Oral 900 mg/kg female 15 days of pregnancy. TOXIC Effects: Effects on Newborn - Growth statistics. Effects on Newborn - Behavioral. Effects on Newborn - Delayed effects. Mouse TDLo Intraperitoneal 600 mg/kg female 6-15 days of pregnancy. TOXIC Effects: Maternal Effects - Other effects. Effects on Embryo or Fetus - Fetotoxicity. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage.</p>

Section IV. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.
Ingestion	DO NOT INDUCE VOMITING. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive.

Section V. Fire and Explosion Data			
Flammability	May be combustible at high temperature.	Auto-Ignition	Not available.
Flash Points	Not available.	Flammable Limits	Not available.
Combustion Products	These products include metallic oxides, halogenated compounds. WARNING: Highly toxic HCl gas is produced during combustion.		
Fire Hazards	Not available.		
Explosion Hazards	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.		
Fire Fighting Media and Instructions	DO NOT use water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use DRY chemicals, CO2, alcohol foam. Consult with local fire authorities before attempting large scale fire-fighting operations.		

Section VI. Accidental Release Measures	
Spill Cleanup Instructions	Corrosive material. Environmentally hazardous material. Harmful material. Water reactive material. Hygroscopic material. Stop leak if without risk. DO NOT get water inside container. DO NOT touch spilled material. Cover with DRY earth, sand or other non-combustible material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition. Consult federal, state, and/or local authorities for assistance on disposal.

Section VII. Handling and Storage	
Handling and Storage Information	CORROSIVE. ENVIRONMENTAL HAZARD. HARMFUL. WATER REACTIVE. HYGROSCOPIC. STORE UNDER NITROGEN. Keep under inert atmosphere. Keep container dry. Do not breathe dust. Never add water to this product. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible. Treat symptomatically and supportively. Always store away from incompatible compounds such as oxidizing agents.

Section VIII. Exposure Controls/Personal Protection	
Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Face shield. Lab coat. Dust respirator. Boots. Gloves. A MSHA/NIOSH approved respirator must be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. 
Exposure Limits	Not available.

Section IX. Physical and Chemical Properties			
Physical state @ 20°C	Solid. (White-yellow crystal-powder.)	Solubility	Soluble in ether, benzene, carbon tetrachloride, chloroform.
Specific Gravity	2.44		Freely soluble in many organic solvents such as benzophenone, nitrobenzene, carbon disulfide.
Molecular Weight	133.34	Partition Coefficient	Not available.
Boiling Point	187 °C (368.6 °F) @ 752 mmHg	Vapor Pressure	1 mmHg @ 100 °C
Melting Point	190 °C (374 °F)	Vapor Density	Not available.
Refractive Index	Not available.	Volatility	Not available.
Critical Temperature	Not available.	Odor	Strong chlorine odor.
Viscosity	Not available.	Taste	Not available.

Section X. Stability and Reactivity Data	
Stability	This material is stable if stored under proper conditions. (See Section VII for instructions)
Conditions of Instability	Avoid excessive heat and light. Hygroscopic; keep container tightly closed. Reacts violently with water.
Incompatibilities	Reactive with strong oxidizing agents, alcohols, water, ammonia, alkali metals, mixtures of nitrobenzene and aluminum chloride.

Section XI. Toxicological Information

RTECS Number	BD0525000
Routes of Exposure	Eye Contact. Ingestion. Inhalation. Skin contact.
Toxicity Data	Rat LD ₅₀ (oral) 3450 mg/kg Rabbit LD ₅₀ (dermal) >2000 mg/kg Mouse LD ₅₀ (oral) 1130 mg/kg
Chronic Toxic Effects	CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY : Reproductive Effects. Rat TDLo Intraperitoneal 375 mg/kg female 9-13 days of pregnancy. TOXIC Effects: Effects on Fertility - Post-implantation mortality. Effects on Embryo or Fetus - Fetotoxicity. Rat TDLo Oral 900 mg/kg female 15 days of pregnancy. TOXIC Effects: Effects on Newborn - Growth statistics. Effects on Newborn - Behavioral. Effects on Newborn - Delayed effects. Mouse TDLo Intraperitoneal 600 mg/kg female 6-15 days of pregnancy. TOXIC Effects: Maternal Effects - Other effects. Effects on Embryo or Fetus - Fetotoxicity. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage.
Acute Toxic Effects	Corrosive to skin, eyes, and respiratory system. Liquid or spray mist may produce tissue damage, particularly in mucous membranes of the eyes, mouth and respiratory tract. Skin contact may produce burns. Eye contact can result in corneal damage or blindness. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Corrosive materials may cause serious injury if ingested. Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Section XII. Ecological Information

Ecotoxicity	Harmful to aquatic life in very low concentrations.
Environmental Fate	Not available.

Section XIII. Disposal Considerations

Waste Disposal	Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.
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Section XIV. Transport Information

DOT Classification	DOT Class 8: Corrosive material.
PIN Number	UN1726
Proper Shipping Name	Aluminum chloride, anhydrous
Packing Group (PG)	II
DOT Pictograms	

Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory (EPA)	This compound is ON the EPA Toxic Substances Control Act (TSCA) inventory list.
WHMIS Classification (Canada)	CLASS E: Corrosive solid. On DSL.
EINECS Number (EEC)	231-208-1
EEC Risk Statements	R14- Reacts violently with water. R20/21/22- Harmful by inhalation, in contact with skin and if swallowed. R34- Causes burns. R52- Harmful to aquatic organisms.
Japanese Regulatory Data	ENCS No. (1)-12, (1)-17

Section XVI. Other Information**Version 1.0****Validated on 8/29/2006.****Printed 8/29/2006.****Notice to Reader**

TCI laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.

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