ISO9001:2000 Certified

Material Safety Data Sheet
Aluminum chloride, hexahydrate

Section 1 - Chemical Product and Company Identification

MSDS Name:
Aluminum chloride, hexahydrate
Catalog Numbers:
LC10810
Synonyms:
Aluminum (III) chloride hexahydrate, trichloroaluminum hexahydrate.
Company Identification:
LabChem, Inc.
200 William Pitt Way
Pittsburgh, PA 15238
Company Phone Number:
(412) 826-5230
Emergency Phone Number:
(800) 424-9300
CHEMTREC Phone Number:
(800) 424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7784-13-6	Aluminum (III) Chloride Hexahydrate	100

Section 3 - Hazards Identification

Emergency Overview

Appearance: *White solid.*
Danger! Causes eye and skin burns. Causes digestive and respiratory tract burns. Water-reactive.
Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

Eye:
Causes eye burns.
Skin:
Causes skin burns.
Ingestion:
Causes gastrointestinal tract burns. Aluminum may be readily absorbed from the gastrointestinal tract.
Inhalation:
Causes chemical burns to the respiratory tract.
Chronic:
Effects may be delayed.

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 at once.

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

Ingestion:
Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation:
Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid.

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:
Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Autoignition Temperature:
Not applicable.

Flash Point:
Not applicable.

NFPA Rating:
CAS# 7784-13-6: Health: 3; Flammability: 0; Instability: 2; Special Hazard: -W-

Explosion Limits:
Lower: n/a Upper: n/a

Section 6 - Accidental Release Measures

General Information:
Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:
Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling:

Use only in a well-ventilated area. Do not allow water to get into the container because of violent reaction. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Keep container tightly closed. Do not get on skin or in eyes. Do not ingest or inhale. Discard contaminated shoes.

Storage:

Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Store in corrosives area. Keep away from water. Keep away from strong bases.

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:

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

OSHA Vacated PELs: No OSHA Vacated PELs are listed for this chemical.

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 minimize contact with skin.

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:	Solid
Color:	Colorless to white
Odor:	Odorless to pungent odor
pH:	Acidic in solution.
Vapor Pressure:	Not available
Vapor Density:	Not available
Evaporation Rate:	Not available

Viscosity:	Not applicable
Boiling Point:	Not available
Freezing/Melting Point:	181° C
Decomposition Temperature:	100° C
Solubility in water:	Soluble
Specific Gravity/Density:	2.39
Molecular Formula:	AlCl3.6H2O
Molecular Weight:	241.43

Section 10 - Stability and Reactivity

Chemical Stability:
Stable under normal temperatures and pressures. Moisture sensitive.

Conditions to Avoid:
Dust generation, contact with water, excess heat.

Incompatibilities with Other Materials:
Water, organic materials. Aluminum chloride reacts violently with water, producing hydrochloric acid and heat.

Hazardous Decomposition Products:
Hydrogen chloride, aluminum oxides.

Hazardous Polymerization:
Has not been reported

Section 11 - Toxicological Information

RTECS:
CAS# 7784-13-6: BD0530000

LD50/LC50:
CAS# 7784-13-6:
Oral, mouse: LD50 = 1990 mg/Kg;
Oral, rat: LD50 = 3311 mg/Kg

Carcinogenicity:
CAS# 7784-13-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology:
Several mortality studies of aluminum reduction plant workers have shown no excess deaths due to organic brain disorders of the dementia type.

Teratogenicity:
No information found.

Reproductive:
No information found.

Mutagenicity:
No information found.

Neurotoxicity:
No information found.

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Section 12 - Ecological Information

No information found.

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Aluminum chloride
Hazard Class: 8
UN Number: UN1726
Packing Group: PGII

Section 15 - Regulatory Information

US Federal

TSCA:

CAS# 7784-13-6 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

SARA Reportable Quantities (RQ):

CAS# 7784-13-6 does not have an RQ.

CERCLA/SARA Section 313:

Not reportable under Section 313.

OSHA - Highly Hazardous:

Not considered highly hazardous by OSHA.

US State

State Right to Know:

CAS# 7784-13-6 can be found on the following state right to know lists: California, (listed as Aluminum, soluble salts), Pennsylvania, (listed as Aluminum, soluble salts), Minnesota, (listed as Aluminum, soluble salts).

California Regulations:

Not listed.

European/International Regulations

Canadian DSL/NDSL:

CAS# 7784-13-6 (listed as Aluminum, soluble salts) is listed on the Canadian DSL list.

Canada Ingredient Disclosure List:

CAS# 7784-13-6 is not listed on the Canadian Ingredient Disclosure List.

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Section 16 - Other Information

MSDS Creation Date: September 27, 2007
Revision Date: None

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