

**Safety Data Sheet**

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section 1: Identification

Product Name Aluminum Chloride USP Hexahydrate Crystals
Commercial Name Aluminium trichloride hexahydrat
Product Use Inorganic Chemical
Restrictions On Use Not available
Product Code 30-1286
Company PCCA
9901 South Wilcrest
Houston, TX 77099
Phone: 1-800-331-2498
Fax: 1-800-874-5760

In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300

Section 2: Hazard(s) Identification

OSHA Haz Com: Skin irritation, Category 2 Eye irritation, Category 2A
CFR 1910.1200

Signal Word WARNING

Hazard Statement(s) Causes skin irritation. Causes serious eye irritation.

Pictogram(s) or Symbol(s)



Precautionary Statement(s):

Prevention Wash skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.

Storage Not available

Disposal Not available.

Section 3: Composition/Information on Ingredients

Substance/Mixture Substance
Components Aluminum chloride hexahydrate
% By Weight 100
CAS# 7784-13-6
Molecular Weight 241.43 g/mole
Chemical Formula AlCl₃·6H₂O
Synonym(s) Not available.

Mixtures Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Aluminum chloride hexahydrate	7784-13-6	100	Not available.	ORAL (LD50):Acute: 3311mg/kg [Rat.].

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Section 4: First-Aid Measures

Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician if irritation develops or persists.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician if irritation develops or persists.
Ingestion	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician.
Symptoms/Effects	
Acute	Not available
Delayed	Not available.
Immediate Medical Attention	
Treat symptomatically.	

Section 5: Fire-Fighting Measures**Suitable Extinguishing Media**

Water spray Foam Carbon dioxide (CO2) Dry powder

Unsuitable Extinguishing Media

Not available.

Products of Combustion

Aluminum oxides Hydrogen chloride gas

Firefighters Special Equipment and Precautions

Wear self-contained breathing apparatus and protective suit. No unprotected exposed skin areas. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Provide adequate ventilation. Wear personal protective equipment. Unprotected persons must be kept away. Avoid dust formation. Environmental precautions: Do not flush into surface water or sanitary sewer system. Methods and materials for containment and cleaning up: Ventilate the area. Avoid dust formation. Sweep up and shovel into suitable containers for disposal. Dispose of in accordance with local regulations.

Section 7: Handling and Storage

Precautions for safe handling: Wear personal protective equipment. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Use only in well-ventilated areas. Avoid dust formation. Do not swallow. Avoid breathing dust. Avoid contact with skin, eyes and clothing. Advice on protection against fire and explosion: Normal measures for preventive fire protection. Storage Conditions for safe storage, including any incompatibilities: Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from atmospheric moisture and water.

Section 8: Exposure Controls/Personal Protection

Exposure Limits	Value: TWA : Time weighted average Control parameters: 1 mg/m3 Update: 2009 Basis: ACGIH:US. ACGIH Threshold Limit Values, as amended Form of exposure : Respirable fraction. Value: REL : Recommended exposure limit (REL) Control parameters: 2 mg/m3 Update: 2005 Basis: NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended Expressed as : as AI Value: TWA : Time weighted average Control parameters: 2 mg/m3 Update: 1989 Basis: Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended Expressed as : as AI
Engineering Controls	Ensure that eyewash stations and safety showers are close to the workstation location. Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment. Avoid breathing dust. Engineering measures : Use with local exhaust ventilation.

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Personal Protection

Eye protection : Safety goggles Hand protection : Impervious gloves Gloves must be inspected prior to use. Replace when worn. Skin and body protection : Protective suit Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment. Hygiene measures : Take off all contaminated clothing immediately. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday. When using do not eat or drink. Avoid contact with the skin and the eyes.

Section 9: Physical and Chemical Properties

Appearance	Solid. Color: colourless		
Odor	odourless		
Odor Threshold	Not applicable		
Melting Point	Not available	pH	2.5 - 3.5 at , 20 °C
Freezing Point	Not applicable	Vapor Pressure	Not applicable.
Boiling Point/Range	Not available	Vapor Density	Not available.
Decomposition temperature	No decomposition if used as	Viscosity	Not available.
Partition Coefficient: n-octanol/water	Not available	Evaporation Rate	Not applicable
Flash Point	Not applicable.	Autoignition temperature	not auto-flammable
Flammability	The product is not flammable	Flammability or Explosive Limits:	
		Lower	Not applicable
		Upper	Not applicable
Solubility(ies)	477 g/l water		
Other	Density : ca. 2.4 g/cm ³ at 20 °C Bulk density : ca. 700 kg/m ³		

Section 10: Stability and Reactivity

Reactivity	Not available
Chemical Stability	Stable under normal conditions.
Hazardous Polymerization	Hazardous polymerisation does not occur.
Conditions to Avoid	Protect from atmospheric moisture and water.
Incompatible Materials	Bases
Hazardous Decomposition Products	Aluminum oxides Hydrogen chloride gas

Section 11: Toxicological Information

RTECS	Not available.
Acute Toxicity	
LD50: 3,470 mg/kg Species: Rat, female Test substance: aluminium chloride, anhydrous LD50: 3,450 mg/kg Species: Rat, male Test substance: aluminium chloride, anhydrous	
Skin Corrosion/Irritation	Irritating to skin.
Serious Eye Damage/Irritation	Irritating to eyes.
Respiratory or Skin Sensitization	Not available
Germ Cell Mutagenicity	Not available
Carcinogenicity	Not available
Reproductive Toxicity	Not available
Routes of Entry	Eye. Skin.
Symptoms Related to Exposure	Not available

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Potential Health Effects

Not available.

Target Organ(s)

Not available

Section 12: Ecological Information**Ecotoxicity**

Toxicity to fish LC50: 27.1 mg/l Exposure time: 96 h Species: Gambusia affinis (Mosquito fish) static test LC50: 36.6 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout) Test substance: aluminium chloride, anhydrous flow-through test NOEC: 0.25 mg/l Exposure time: 42 d Species: Oncorhynchus mykiss (rainbow trout) Test substance: aluminium chloride, anhydrous Toxicity to daphnia and other aquatic invertebrates static test EC50: 27.3 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Test substance: aluminium chloride, anhydrous Reproduction Test NOEC: 0.8 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test substance: aluminium chloride, anhydrous static test EC50: 7.4 mg/l Exposure time: 48 h Species: Ceriodaphnia (water flea) Test substance: aluminium chloride, anhydrous Toxicity to bacteria : LC50: > 1,000 mg/l Exposure time: 14 d Species: Eisenia sp. (annelids) NOEC: 100 mg/l Exposure time: 42 d Species: Eisenia sp. (annelids)

Persistence and Degradability

Not available.

Bioaccumulative Potential

Not available.

Mobility in Soil

Not available.

Other Adverse Effects

Harmful to aquatic organisms.

Section 13: Disposal Considerations**Waste Disposal**

Observe all Federal, State, and Local Environmental regulations.

Disposal of Container

Not available.

Other Considerations

Not available.

Section 14: Transport Information**DOT Classification**

DOT Not dangerous goods

Section 15: Regulatory Information**Regulations**

SARA 302 Components : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. SARA 311/312 Hazards : Acute Health Hazard California Prop. 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Other

WHMIS CLASS E: Corrosive solid. (Canada);DSCL (EEC) R36/38- Irritating to eyes and skin.;Gloves.;Synthetic apron.;Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.;Splash goggles.

Section 16: Other Information

Changes to MSDS from previous date are due to the following: Change from AlliedSignal logo to Honeywell logo