

Safety Data Sheet

Aluminum Chloride, 6-Hydrate

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: Aluminum Chloride, 6-Hydrate
Recommended Use: Science education applications
Synonyms: Aluminum (III) Chloride, Hexahydrate; Aluminum Trichloride, Hexahydrate
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

WARNING



Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. Harmful to aquatic life.

GHS Classification:

Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3, Hazardous to the aquatic environment - Acute Category 3, Acute Toxicity - Oral Category 5

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Aluminum Chloride, 6-Hydrate 95-100%	7784-13-6	100

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5 Firefighting Procedures

Extinguishing Media: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards: N/A
Hazardous Combustion Products: Hydrogen chloride, Aluminum oxide dust,

Section 6 Spill or Leak Procedures

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Steps to Take in Case Material Is Released or Spilled:

Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Isolate area. Keep unnecessary personnel away. Avoid the generation of dusts during clean-up. Do not flush to sewer.

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

Section 7 Handling and Storage

Handling: Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up. Keep container tightly closed in a cool, well-ventilated place.

Storage Code: Green - general chemical storage

Section 8 Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>	<u>OSHA PEL</u>		
	(TWA)	(STEL)	(TWA)	(STEL)
No data available	N/A	N/A	N/A	N/A

Control Parameters

Engineering Measures:

No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

Personal Protective Equipment (PPE): Respiratory Protection:

Lab coat, apron, eye wash, safety shower.
No respiratory protection required under normal conditions of use. Respiratory protection may be required in addition to ventilation depending upon conditions of use.

Eye Protection:

Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection:

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves:

Nitrile

Section 9 Physical Data

Formula: $\text{AlCl}_3 \cdot 6\text{H}_2\text{O}$
Molecular Weight: 241.43
Appearance: Crystalline Solid
Odor: No data available
Odor Threshold: No data available
pH: 2.5 - 3.5 at 20 °C
Melting Point: No data available
Boiling Point: No data available
Flash Point: No data available
Flammable Limits in Air: N/A

Vapor Pressure: 1 hPa (1 mmHg) at 100 °C (212 °F)
Evaporation Rate (BuAc=1): N/A
Vapor Density (Air=1): N/A
Specific Gravity: 2.4
Solubility in Water: Soluble
Log Pow (calculated): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: 0%

Section 10 Reactivity Data

Reactivity: No data available
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: None known.
Incompatible Materials: Strong acids
Hazardous Decomposition Products: Aluminum oxide dust,, Hydrogen chloride
Hazardous Polymerization: Will not occur

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Section 11

Toxicity Data

Routes of Entry: Inhalation, ingestion, eye or skin contact.
Symptoms (Acute): N/A
Delayed Effects: No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum Chloride, 6-Hydrate 95-100%	7784-13-6	Oral LD50 Mouse 1990 mg/kg Oral LD50 Rat 3311 mg/kg	Not determined	Not determined

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
No data available	7784-13-6	Not listed	Not listed	Not listed

Chronic Effects:

Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: See Section 2
Chronic: Tests on laboratory animals indicate material may produce adverse mutagenic and reproductive effects.,
Not listed as a carcinogen by IARC, NTP or OSHA.

Section 12

Ecological Data

Overview: Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife. Components of this product are hazardous to wildlife and aquatic life.
Mobility: No data
Persistence: No data
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
N/A	7784-13-6	

Section 13

Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): Not Determined

Section 14

Transport Information

Ground - DOT Proper Shipping Name:	Air - IATA Proper Shipping Name:
N/A	Not regulated for air transport by IATA.

Section 15

Regulatory Information

TSCA Status: A component (or components) of this product is not listed on the TSCA Inventory of Existing Chemical Substances. Product is for research and development use only.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
No data available	7784-13-6	No	No	No	No	No

Section 16

Additional Information

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health