<u>GHS Safety Data Sheet</u>

SDS No. : ALH03XAEG

Date Issued : 2004/06/18 Last updated : 2019/07/29

Section 1. Identification of the substance or mixture and of the supplier Product Information

Product name: Al(NO₃)₃·9H₂O Aluminum nitrate, hydrous

Product	Purity	Form	Size or Shape
ALH09XB	99.9%(3N)	_	
ALH10XB	99.999%(5N)	_	

Company Information:

Manufacturer : Kojundo Chemical Laboratory Co., Ltd. 1-28, 5-chome, Chiyoda, Sakado-shi, Saitama Japan 350-0284 Phone: +81-49-284-1511 Fax: +81-49-284-1351

Emergency Phone : +81-49-284-1511

Recommended uses and restrictions on use: For research purposes

Section 2. Hazards identification

GHS Classification

Health Hazards	Environmental Hazards	Physical Hazards	
Serious eye damage/eye irritation : Category 2	No data availableFlammable solids : Not classified Self-heating substances and mixtures : Not classified Substances and mixtures which 		
GHS Label: X, W Pictograms or symbols:			
Warning word: WARNING Hazard information Description of precaution			
May intensify fire; oxidizer Causes serious eye irritation	Description of precaution Keep away from heat/sparks/open flames/hot surfaces No smoking. Wear protective gloves/protective clothing/eye protection/respiratory protection/face protection during handling. Avoid breathing dust/mist/gas/fume/vapors/spray. Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling. IN CASE OF FIRE: Wear protective gloves/eye protection/face protection. Use 《refer to our SDS》 to extinguish. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store away from heat and combustible materials. Take any precaution to avoid mixing with combustible materials. Dispose of contents/ container in accordance with local/national regulations.		

Section 3. Composition / information on ingredients

Chemical or common name: Chemical formula: Single Substance or Compound: Aluminum nitrate nonahydrate Al(NO₃)₃·9H₂O Single substance

High Purity Materials
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Composition:	100%
CAS #:	7784-27-2 (anhydrous : 13473-90-0)
RTECS#:	BD1050000
TSCA inventory :	Listed (anhydrous)
EINECS:	2367518 (anhydrous)

Section 4. First aid measures

Eye contact:	Promptly wash eyes with plenty of water while lifting the eye lids.		
	Continue to rinse for at least 15 minutes and get medical attention.		
Skin contact:	Promptly flush contaminated skin with soap or mild detergent and water.		
	Contact physician if irritation continues.		
Inhalation: Remove the exposed person immediately and provide fresh air.			
	Get medical attention.		
Ingestion:	Rinse mouth and throat with water. Get medical attention immediately.		

Section5. Fire fighting measures

Extinguishing media:			
Water fog or foam, Perlite ,dry sand.			
Do not use carbon dioxide or dry chemicals.			
The product is not combustible but enhances combustion of other substances.			
In case of fire, the product may liberate toxic gases/ fume.			
Self-contained breathing apparatus and full protective clothing should be used, if			
the material is involved in fire.			

Section 6. Accidental release measures

Personal	Precautions:

Workers should use protective wears to prevent contact with the spilt adhesive and inhalation of its vapor/dusts.

Environmental hazard precautions:

Shut off leak if without risk.

Prevent flow out to river, etc. so as not to badly affect.

Method for containment and cleaning up:

Remove combustible materials and all sources of ignition.

Indoor leakage: Ventilate as much as possible until the cleaning is completed.

Outdoor leakage: Work from the windward and evacuate the leeward crowd.

Gather up, pack in closed DOT-approved waste container as much as possible.

Carefully collect remnant and move to a safe place.

Section 7. Handling and storage

Precautions to be taken in handling:

Safe handling: Use protective wears and local ventilation equipment, if inhalation or skin contact is foreseen.

Avoid prolonged or repeated exposure.

Keep away from moisture when handling.

Keep container or bottle tightly closed when not in use.

Precautions to be taken in storage:

General precautions: Store the material in a sealed container. Store in a cool, dry, well ventilated and dark place away from incompatible materials.



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Section 8.	Exposu	re controls /	/ personal	protection
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Exposure guideline:	ACGIH(2019) ÷ No data available		
	OSHA(2006) : No data available		
Facility measures:	Local ventilation of closed work room or total proper ventilation to prevent		
	inhalation.		
Protective ware:	Wear appropriate NIOSH/MSHA-approved respirator, safety goggles,		
	protective gloves.		

Section 9. Physical and chemical properties

Appearance:	Colorless solid, deliquescent.
Chemical formula:	$Al(NO_3)_3 \cdot 9H_2O$
Formula weight:	375.1
Melting point:	73.5 °C
Boiling point:	150 °C(decomposes)
Density:	1.72 g/cm^3
Solubility:	Soluble ; water, ethanol, acid, alkali, acetone.
	Decomposes; hot water.
Flammable:	Non-combustible substance
Oxidation:	Oxidizing substance

Section 10. Stability and reactivity

Stability: Stable in a sealed dry atmosphere under room temperature.

Reactivity

Incompatibility: Strong reducing agents, strong acids, combustible substances, metal powder. Heat, ignition source, moisture.

Condition to avoid:

Hazardous decomposition products:

Nitrogen oxides.

Section11. Toxicological information

Acute toxicity:	GHS : No data available	
Skin corrosive / irritation:	GHS : No data available	
Serious eye damage / irritation:	GHS : Category 2; Causes serious eye irritation	
Respiratory/ skin sensitization:	GHS : No data available	
Germ cell mutagenicity:	GHS : No data available	
Carcinogenicity:	GHS : No data available	
Reproductive toxicity:	GHS : No data available	
Specific target organ toxicity		
-single exposure:	GHS : No data available	
-repeated exposure:	GHS : No data available	
Aspiration hazard:	GHS : No data available	

Section12. Ecological information

Ecotoxicity:

Hazardous to the aquatic environment

-acute toxicity:	GHS : No data available
-chronic toxicity:	GHS : No data available
Hazardous to the ozone layer	GHS : No data available
	No Freon or Halon
Fish toxicity:	No data available
Degradability:	No data available

High Purity Materials

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Bioaccumulative potential:	No data available
Mobility in soil:	No data available

Section13. Disposal considerations

Disposal method: User of the product should contract with the local government or licensed 'Industrial Waste Haulers' for disposal of waste.

Section 14. Transport information

UN number:	1438
IATA shipping name:	Aluminum nitrate
IATA hazard class:	Class 5.1 (Oxidizing substances)
IATA packing group:	Ш
HS code:	2834.29
Marine pollution:	None

Section 15. Regulatory information

TSCA inventory: listed (anhydrous).

Please refer to any other local / national measures that may be relevant.

Section 16. Other information

The information described above is believed to be correct. However, Kojundo Chemical Lab. makes no representation, warranty nor guarantee of any kind with respect to the information on this data sheet or any use of the product based upon this information.

