



HASA ALUM

Safety Data Sheet

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Safety Data Sheet (SDS No. 210)

Emergency 24 Hour Telephone: **CHEMTREC 800.424.9300**

Corporate Headquarters: HASA Inc.
25152 Springfield Court, Suite 300
Valencia, CA 91355
Telephone • 661.259.5848
Fax • 661.259.1538

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1	Product Identification:	
1.1.1	Product Name:	HASA ALUM
1.1.2	CAS #:	10043-01-3
1.1.3	RTECS:	BD1700000
1.1.4	EINECS:	233-135-0
1.1.5	Synonym:	Sulfuric acid, aluminum salt (3:2); Cake Alum.
1.1.6	Chemical Name:	Aluminum sulfate hydrated.
1.1.7	Chemical Formula:	$\text{Al}_2(\text{SO}_4)_3 \cdot 14\text{H}_2\text{O}$ (approximate for commercial material)
1.1.8	Formula Weight:	594 g/mole (342 g/mole for aluminum sulfate anhydrous).
1.2	Recommended Use:	Aluminum sulfate is mainly used as a flocculating agent in the purification of drinking water http://en.wikipedia.org/wiki/Aluminium_sulfate_-_cite_note-1#cite_note-1 and waste water treatment plants.
1.3	Company Identification:	HASA Inc. 25152 Springfield Court, Suite 300 Valencia, CA 91355
1.4	Emergency Telephone Number:	CHEMTREC (24 Hour): 1-800-424-9300
1.5	Non-Emergency Assistance:	661-259-5848 (8 AM – 5 PM PST / PDT)

SECTION 2: HAZARD(S) IDENTIFICATION

Hazard Category	Acute Toxicity (Oral):	Category 4
	Acute Toxicity (Inhalation):	Category 4
	Eye damage / irritation:	Category 2B
	Skin corrosion / irritation:	Category 2
Symbols		
Signal Word	WARNING	
Hazard Statement	Harmful if swallowed. Harmful if inhaled. Causes eye irritation. Causes skin irritation.	
Precautionary Statement	Prevention	
	Wash hands thoroughly after handling.	
	Do not eat, drink or smoke when using this product.	
	Wear protective gloves.	
	Avoid breathing dust. Use only outdoors or in a well-ventilated area.	
	Response	
	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.	
	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.	
	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 attention.	
	IF ON SKIN: Wash with plenty of water. If skin irritation occurs, get medical attention. Take off contaminated clothing and wash it before reuse.	
	Storage and Disposal	
	Dispose of container/contents in accordance with local, regional, national, international regulations as specified.	

SECTION 3: COMPOSITION INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Weight %
Aluminum Sulfate	10043-01-3	57.6% (anhydrous)

SECTION 4: FIRST AID MEASURES

4.1	IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
4.2	IF ON SKIN OR CLOTHING	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
4.3	IF INHALED	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
4.4	IF SWALLOWED	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5: FIRE FIGHTING MEASURES

5.1	Extinguishing Media:	Product is not flammable. Use any extinguishing agent suitable for surrounding fire.
5.2	Fire Hazards:	Nonflammable and noncombustible
5.3	Fire Fighting Procedures:	Keep product and empty container away from heat and sources of ignition.
5.4	Flammable Limits:	Not applicable.
5.5	Hazardous Combustion Products:	Irritating and hazardous gases may be generated during thermal decomposition.
5.6	Sensitivity to Impact:	Not sensitive.
5.7	Sensitivity to Static Discharge:	Not sensitive.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Shovel up dry chemical and place in empty container and cover. Spray residue with plenty of water. Neutralize residue with alkali such as soda ash, lime or limestone. Adequate ventilation is required for soda ash or limestone due to release of CO₂ gas. Collect liquid and/or residue and dispose of in accordance with applicable regulations.

SECTION 7: HANDLING AND STORAGE

7.1	Handling:	Avoid contact with skin, eyes and clothing. Do not breathe product mists or dust. Wash hands thoroughly after handling. If applicable, remove and wash clothing before reuse. Discard contaminated shoes. Use adequate ventilation.
7.2	Storage:	Store in a cool, dry place. Keep containers tightly closed. Keep away from strong bases.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1	Engineering Controls:	Use local exhaust if dusty or misty conditions prevail.
8.2	Personal Protection:	See 29 CFR section 1910.134 and ANSI Z88.2 or European Standard EN 149 for guidance.
	8.2.1 Eyes and Face:	Wear appropriate chemical safety goggles. Do not wear contact lenses.
	8.2.2 Respiratory:	A NIOSH approved dust or mist respirator should be worn in areas where product dusts or mists are present.
	8.2.3 Skin:	Wear gloves and appropriate industrial work clothing including long sleeved shirts and trousers for routine product handling. If prolonged or repeated contact is anticipated, all clothing should be impervious to liquid.
8.3	Exposure Limits:	
	8.3.1 ACGIH (American Conference of Governmental Industrial Hygienists) TLV (Threshold Limit Value)	2 mg/m ³ *
	8.3.2 OSHA PEL (Permissible Exposure Limit):	2 mg/m ³ *

* Data from supplier.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	Appearance:	Pale green to white granules or powder.
9.2	Odor:	Odorless.
9.3	Odor Threshold:	No information available.
9.4	pH:	~3.5 (1% Dry Alum basis solution)
9.5	Melting Point:	770 °C (decomposes, anhydrous)
9.6	Freezing point:	No information available.
9.7	Boiling Point & Boiling Range:	No information available.
9.8	Flash Point:	No information available.
9.9	Evaporation Rate:	No information available.
9.10	Flammability (solid, gas):	Not flammable.
9.11	Upper / Lower Flammability or Explosive Limits:	No information available.
9.12	Vapor Pressure:	Not applicable.
9.13	Vapor Density:	Not applicable.
9.14	Relative Density (Specific Gravity):	1.61
9.15	Solubility in Water:	50% at 0 °C.
9.16	Partition Coefficient: (n-octanol / water):	No information available.
9.17	Auto-ignition Temperature:	No information available.
9.18	Decomposition Temperature:	No information available.
9.19	Molecular Weight:	342 g/mole for aluminum sulfate (anhydrous) 594 g/mole for $\text{Al}_2(\text{SO}_4)_3 \cdot 14\text{H}_2\text{O}$
9.20	Viscosity:	No information available.

SECTION 10: STABILITY AND REACTIVITY

10.1	Stability:	Stable under normal temperature and pressure
10.2	Hazardous Polymerization:	Will not occur.
10.3	Incompatible Materials:	Alkalis and water reactive materials such as oleum cause exothermic reactions.
10.4	Hazardous Decomposition Products:	At elevated temperatures, sulfur oxides may be formed. These are toxic and corrosive and are oxidizers. Sulfur trioxide is also a fire hazard. The loss of these gases leaves a caustic residue.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Inhalation, ingestion.
11.2	Animal Toxicity:	
	11.2.1 Oral (LD ₅₀):	6207 mg/kg [mouse] 1930 mg/kg [rat]
	11.2.2 Dermal (LD ₅₀):	No data.
	11.2.3 Inhalation (LD ₅₀):	No data.
11.3	Acute Human Health Effects from Overexposure:	
	11.3.1 Eyes:	May irritate or burn the eyes. Similarly for the aqueous solution.
	11.3.2 Inhalation:	Dust or mist inhalation at levels above the TLV may cause irritation to the respiratory tract.
	11.3.3 Dermal:	May cause skin irritation, especially under repeated or prolonged contact, or when moisture is present.
	11.3.4 Ingestion:	May irritate the gastrointestinal tract.
11.4	Chronic Human Health Effects from Overexposure:	None known.
11.5	Carcinogenic [Cancer Potential] Information:	
	11.5.1 NTP (National Toxicological Program 6 th Annual Report on Carcinogens)	Not Listed.
	11.5.2 IARC (International Agency for Research on Cancer Monographs, V. 1-100)	Not Listed.
	11.5.3 OSHA (Occupational Safety & Health Administration)	Not Listed.
	11.5.4 ACGIH (American Conference of Governmental Industrial Hygienists)	Not Listed.

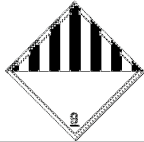
SECTION 12: ECOLOGICAL INFORMATION

12.1	Ecotoxicity:	
	12.1.1 Fish:	LC ₅₀ = 100 mg/L <i>Carassius auratus</i> 96 h LC ₅₀ = 37 mg/L <i>Gambusia affinis</i> 96 h
	12.1.2 Water Flea:	EC ₅₀ = 136 mg/L 15 min
12.2	BOD and COD:	No information available.
12.3	Products of Biodegradation:	Biodegradation does not pertain to inorganic substances.
12.4	Toxicity of the Products of Biodegradation:	Not applicable.
12.5	Mobility:	No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	Waste Disposal Methods:	Dispose of waste in accordance with all federal, state, and local regulations.
13.2	Contaminated Packaging:	Empty containers should be taken for local recycling, recovery or waste disposal.

SECTION 14: TRANSPORT INFORMATION

14.1	US D.O.T.		Package less than 5000 pounds.	Package over 5000 pounds.
	14.1.1	Proper Shipping Name:	None required	Environmentally hazardous substances, solid, n.o.s. (contains aluminum sulfate)
	14.1.2	Hazard Class:	None required	9 
	14.1.3	UN ID Number:	Not applicable	UN3077
	14.1.4	Packing Group:	None required	PG III
14.2	Canadian TDG (Transportation of Dangerous Goods)			
	14.2.1	Shipping Name:	Environmentally hazardous substances, solid, n.o.s. (contains aluminum sulfate) (only if greater than 5000 lbs. in one package)	
	14.2.2	UN ID Number:	UN3077	
	14.2.3	Hazard Class:	9	
	14.2.4	Packing Group:	PG III	

SECTION 15: REGULATORY INFORMATION

15.1	U.S. Regulations:	
15.1.1	OSHA HAZCOM (Hazard Communication)	This product is considered hazardous under the HAZCOM Standard (29 CFR 1910.1200)
15.1.2	OSHA PSM (Process Safety Management)	Not regulated under PSM Standard (29 CFR 1910.119)
15.1.3	EPA FIFRA (Federal Insecticide, Fungicide and Rodenticide Act)	Not regulated as a pesticide.
15.1.4	SARA (Superfund Amendments and Reauthorization Act) 311/312	Acute Health Hazard.
15.1.5	SARA Section 313 of Title III	This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.
15.1.6	EPA CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)	RQ – 5,000 lbs.
15.1.7	EPA TSCA (Toxic Substance Control Act)	Listed on the inventory.
15.1.8	EPA RCRA (Resource Conservation and Recovery Act)	Not Hazardous waste.
15.1.9	EPA RMP (Risk Management Plan)	Not regulated. (40 CFR 68.130)
15.2	State of California Regulations:	
15.2.1	CalARP (California Accidental Release Prevention):	Not regulated.
15.2.2	CDPR (California Department of Pesticide Regulation):	Not regulated.
15.2.3	Prop 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):	Not listed.
15.3	Canada Regulations:	
15.3.1	WHMIS (Workplace Hazardous Materials Information System):	
	15.3.1.1 WHMIS Classification:	D2B - Poisonous and infectious material - Other effects – Toxic
	15.3.1.2 WHMIS Health Effects Criteria Met by this Chemical:	D2B - Eye irritation - toxic – other.
15.3.2	DSL: (Domestic Substances List)	The substance is specified on the DSL.
15.4	International Inventory:	
15.4.1	AICS (Australian Inventory of Chemical Substances):	On inventory or in compliance with inventory.
15.4.2	KECI (Korean Existing Chemicals Inventory):	On inventory or in compliance with inventory.
15.4.3	PICCS (Philippine Inventory of Chemicals and Chemical Substances):	On inventory or in compliance with inventory.
15.4.4	IECSC (Inventory of Existing Chemical Substances in China):	On inventory or in compliance with inventory.
15.4.5	NZIoC (New Zealand Inventory of Chemicals):	On inventory or in compliance with inventory.

SECTION 16: OTHER INFORMATION			
16.1	HMIS III (Hazardous Materials Identification System):		
	16.1.1	HEALTH	2
	16.1.2	FLAMMABILITY	0
	16.1.3	PHYSICAL HAZARD	0
	16.1.4	PERSONAL PROTECTION	See Section 8.
16.2	NFPA 704 (National Fire Protection Association):		
	16.2.1	HEALTH	1
	16.2.2	FLAMMABILITY	0
	16.2.3	INSTABILITY	0
	16.2.4	SPECIAL	None
16.3	International Fire Code / International Building Code:		No information.
16.4	ANSI (American National Standards Institute):		
	16.4.1	Hazardous Industrial Chemicals - SDS-Preparation:	Complies with ANSI Z400.1 – 2004.
	16.4.2	Hazardous Industrial Chemicals - Precautionary Labeling:	Complies with ANSI Z129.1 – 2006.



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