Safety Data Sheet

1. Product Identifier and Company Identification

Product name : **Aluminum Sulfate Solution**
HBCC SDS number : CA06800
Synonym : Liquid Alum; Alum
Product use and Restrictions : Refer to label or call
Manufacturer Contact Address :

Corporate Headquarters
Hill Brothers Chemical Company
3000 E Birch St, Suite 108
Brea, California 92821
714-998-8800 – Office
800-821-7234 – Office

Corporate Safety & Compliance
Hill Brothers Chemical Company
21639 N 12th Ave, Suite 100
Phoenix, Arizona 85027
623-535-9955 - Office
623-535-9944 - Fax

Emergency telephone Number (Chemtrec) : 800-424-9300
Website : https://www.hillbrothers.com

2. Hazard Identification

Classification : Serious Eye Damage/Eye Irritant – Category 1

Signal Word : Danger

Pictogram(s) :

Hazard Statements : H318: Causes serious eye damage

Precautionary Statements

Response : P305 + P351 + P338 + P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediately call a POISON CENTER or doctor.

Prevention : P280: Wear eye or face protection
P264: Wash hands thoroughly after handling

Storage : N/A

Disposal : N/A

3. Composition/Information on Ingredients

CAS Number	Ingredient Name	Weight %
10043-01-3	Aluminum Sulfate, anhydrous	<50%
7732-18-5	Water	>50%

4. First Aid Measures

Ingestion : Do Not Induce Vomiting - Dilute slowly with 1-2 glasses of water. SEEK MEDICAL ATTENTION IMMEDIATELY.

Inhalation : If inhaled in large amounts, move exposed person to fresh air. Administer artificial respiration if necessary. Have qualified medical personnel administer oxygen.

Skin : Immediately remove contaminated clothing. Wash skin in flowing water or shower, then with soap and water. Contact a physician if irritation continues. Wash contaminated clothing separately before reuse. If irritation develops, get medical attention.

Eyes : Immediate and continuous flushing with flowing water for at least 15 minutes. Prompt medical consultation is essential.

Medical Conditions : N/A

Effects of Overexposure : Irritating to skin, eyes, and mucous membranes. Accidental ingestion may cause gastrointestinal irritation, nausea and vomiting.

Summary of Acute Health Hazards : N/A

Ingestion : May cause abdominal pain, nausea, and or vomiting. Concentrated solutions (over 20%) can cause burns of the mouth, bleeding stomach, incoordination, muscle spasms, and/or kidney injury.

Inhalation : Product mists may cause irritation to the respiratory tract.

Skin : May cause irritation or burns if the product is wet or in the presence of perspiration.

Eyes : May cause irritation and inflammation of the eye. Concentrated solutions (over 20%) may cause severe eye damage or burns.

Note to Physicians : All treatment should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Aluminum soluble salts may cause gastroenteritis if ingested. Treatment includes the use of demulcents.

Summary of Chronic Health : N/A

5. Fire Fighting Measures

Extinguishing : Not combustible. Use appropriate extinguishing media for material that is supplying fuel. Use water spray to cool the surrounding area and to maintain fire temperature below decomposition temperature.

Special Exposure Hazards : Under fire conditions greater than 650°C (1202°F), product decomposes to give off sulfur trioxide, an oxidizing agent which will support combustion. Sulfur trioxide will react with water to form sulfuric acid.

Special Protective Equipment for Firefighters : Wear a NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Dike area to prevent runoff and contamination of water sources.

Fire Fighting Procedures : N/A

NFPA Rating : Health - 2
Flammability - 0
Instability – 1

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

Uniform Fire Code Rating : N/A

6. Accidental Release Measures

Personal Precautions : Adequate ventilation is required if soda ash or limestone is used, because of the consequent release of carbon dioxide gas.

Emergency Procedures : Use positive pressure supplied air or self-contained breathing apparatus for emergency or other conditions where a higher level of protection is required.

Methods of Containment And Clean-Up : Dilute small spills or leaks cautiously with plenty of water. Neutralize any further residue with alkali such as soda ash, lime or limestone. Large spills: dike up with soda ash and neutralize as above. Collect liquid and/or residue and dispose of in accordance with applicable regulations.

7. Handling and Storage

Safe Handling : Do not swallow. Avoid contact with eyes, skin and clothing.

Storage : Store in a cool area in tightly closed containers.

Work/Hygienic Practices : Wash hands thoroughly with soap and water before eating, drinking, smoking, and using toilet facilities. Do NOT place food, coffee or other drinks in the area where dusting or splashing of solutions is possible.

Ventilation : Provide adequate ventilation. Use local exhaust as needed to maintain airborne exposure below control limits.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits :

Chemical Name: Aluminum Sulfate Solution				
Exposure Limits (TWAs) in Air				
CAS Number	**IDLH**	**ACGIH TLV**	**OSHA PEL**	**STEL**
10043-01-3	N/A	2 mg/m³(solid)	2 mg/m³(solid)	N/A

Protective Equipment : Long-sleeved clothing, apron, rubber gloves and boots.

Eye Protection : Use chemical safety goggles.

Respiratory Protection : Where the exposure limits are or may be exceeded, use a NIOSH/MSHA approved respirator for acid dusts. Use positive pressure supplied air or self contained breathing apparatus for emergency or other conditions where a higher level of protection is required.

9. Physical and Chemical Properties

Appearance: A clear, light green or amber liquid	**Odor:** Odorless
Odor Threshold: N/A	**pH:** <3 (1% solution)
Melting Point/Freezing Point: 16° C; 3.2° F	**Initial Boiling Point/Range:** 101° C; 214° F
Flash Point: N/A	**Evaporation Rate (BuAc=1):** N/A
Flammability: N/A	**Lower/Upper Explosive Limit:** N/A
Vapor Pressure (mmHg): N/A	**Vapor Density (Air=1):** N/A
Relative Density: 11.1 lbs./gal @15.5° C	**Solubility in Water:** 100%
Partition Coefficient: N/A	**Autoignition Temperature:** N/A
Decomposition Temperature: >770° C	**Viscosity:** 25 cps @20° C (68° F)
% Volatiles: N/A	**Specific Gravity (Water=1):** 1.3
Molecular Weight: N/A	**VOC:** N/A

10. Stability and Reactivity

Reactivity : Alkalis and water reactive materials, such as oleum, cause exothermic reactions.

Chemical Stability : Stable

Possibility of Hazardous Reactions or Polymerizations : Hazardous polymerization will not occur

Conditions to Avoid : If evaporated to dryness, residue should not be exposed to elevated temperatures (above 760° C), as this will yield toxic and corrosive gases.

Incompatible Materials : Alkalis and water reactive materials such as oleum.

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 leaves a caustic residue.

11. Toxicological Information

Acute and Chronic Effects : See Section 4

Routes of Exposure

Ingestion : Yes
Inhalation : Yes
Skin : Yes
Eyes : Yes

Symptoms related to Physical, Chemical & Toxicological Characteristics : May cause abdominal pain, nausea, and or vomiting. Product mists may cause irritation to the respiratory tract. May cause irritation or burns if the product is wet or in the presence of perspiration. May cause irritation and inflammation of the eye.

Numerical Measures of Toxicity : Aluminum Sulfate:
LD50 (oral, mouse): 6207 mg/kg.
LD50 (oral, rat): 1930 mg/kg.

Chronic Toxicity : N/A

Carcinogenicity : N/A

Product Name: Aluminum Sulfate Solution					
ACGIH	**IARC**	**EPA**	**NIOSH**	**NTP**	**OSHA**
No	No	No	No	No	No

TARGET ORGANS : N/A

12. Ecological Information

Ecotoxicity : Aluminum Sulfate:
14 ppm/ 36 hr/fundulus/fatal/fresh water.
240 ppm/48 hr/mosquito fish/TLm/water type not specified.
TLm Mosquito fish, 235 ppm, 96 hours
LC50 Largemouth bass, 250 ppm, 96 hours

Persistence and Degradability : N/A

Product/Ingredient	Log $_{Pow}$	BCF	Potential
-	-	-	-

Bioaccumulative Potential : No potential for food chain concentration

Mobility in Soil : Aluminum sulfate (solid) is sometimes used to reduce the pH of garden soil, as it hydrolyzes to form the aluminum hydroxide precipitate and a dilute sulfuric acid solution.

13. Disposal Considerations

Disposal of Container : Dispose of in accordance with federal, state and local environmental laws and regulations. The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any byproducts should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport Information

UN# : UN3264
Proper Shipping Name : Corrosive liquid, acidic, inorganic, n.o.s. (Aluminum Sulfate)
Hazard Class/Division : 8
Packing Group : III
Marine Pollutant : No
Special Provisions : IB3, T7, TP1,TP28
Emergency Response Guidebook : 2012 ERG, Guide 154, pages 246-247
Placard Advisory :

15. Regulatory Information

SARA 302 Extremely Hazardous Substances (EHS) : No chemical in this product is listed as an Extremely Hazardous Substance (EHS) under Section 302 of EPCRA.

SARA 304 Extremely Hazardous Substances (EHS) Release Notification : No chemical in this product is listed as an Extremely Hazardous Substance (EHS) which, if released to the environment in quantities at or above the substance's Reportable Quantity (RQ), would require reporting to the SERC and LEPC under Section 304 of EPCRA.

SARA 311/312 Hazards :

SARA 311/312 Hazards				
Acute	**Chronic**	**Flammability**	**Pressure**	**Reactivity**
Yes	No	No	No	No

SARA 313 Reportable Chemicals : No chemical in this product is subject to annual emissions, transfers, or waste management reporting under the Community-Right-to-Know provisions of EPCRA Section 313, also known as the Toxic Release Inventory (TRI) Report or Form R.

CERCLA Hazardous Substances : This product contains the following CERCLA hazardous substance(s) subject to the National Response Center (NRC) reporting requirements if released to the environment in quantities greater than or equal to the substance's CERCLA Reportable Quantity (RQ).
Aluminum Sulfate, CAS 10043-01-3 CERCLA RQ = 5000 lbs. (2268 kg.)

Clean Air Act (CAA) Section 112(r) Air Pollutants : No chemical in this product is listed as an air pollutant under the U.S. Clean Air Act, Section 112(r) (40 CFR 61).

California Prop 65 Chemicals : This product does not contain any chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

Hazard Label Warning : This product requires the following hazard label warning:
Corrosive, Class 8

TSCA (Toxic Substances Control Act) : All chemical substances in this product are listed on the U.S. TSCA Inventory List.

ACRONYMS:

CAS # – Chemical Abstract Services Registry Number
CFR – Code of Federal Regulations
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
EPCRA – Emergency Planning and Community Right-to-Know Act
LEPC – Local Emergency Planning Committee
SERC – State Emergency Response Commission

16. Other Information

Revision date : 01/23/2026
Supersedes : 03/31/2021
First Issue : 09/12/2001

Chemical Family/Type : Metal Salts

Section(s) changed since last revision : 1

IMPORTANT! Read this SDS before use or disposal of this product. Pass along the information to employees and any other persons who could be exposed to the product to be sure that they are aware of the information before use or other exposure. This SDS has been prepared in accordance with the Globally Harmonized System of Chemical and Labeling of Chemicals (GHS) Fifth Edition and the OSHA Hazard Communication Standard [29 CFR 1910.1200]. The SDS information is based on sources believed to be reliable. Available data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control; **Hill Brothers Chemical Company** makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Additional information may be necessary or helpful for specific conditions and circumstances of use. It is the user's responsibility to determine the suitability of this product and to evaluate risks and exercise appropriate precautions for protection of employees and others prior to use.