

Safety Data Sheet

Aluminum Sulfate Liquid

SECTION 1 – PRODUCT AND SUPPLIER IDENTIFICATION

Product: Aluminum Sulfate liquid
Supplier: SingleTrack Solutions Corp.
Address: 4838 Richard Road SW, Calgary, Alberta, Canada T3E 6L1
Office: 1-587-353-4119

Product detail

Product Name: Aluminum Sulfate liquid
 Synonyms: Aluminum Sulphate, Liquid Alum
 CAS No.: 10043-01-3

SECTION 2 – HAZARD(S) IDENTIFICATION

Potential Acute Health Effects

Eye Contact: Eye exposure may cause irritation. Can result in mild to moderate discomfort to eyes.

Skin Contact: Can cause mild to moderate skin irritation. Aluminum has very low dermal absorption, and adverse effects are unlikely from short-term contact. However, extended or repeated exposure can lead to skin defatting and dryness. Continuous or repeated contact might also result in discomfort and localized redness.

Inhalation: Breathing in vapors or mists of the product may irritate the respiratory tract. Could also irritate the mouth, nose, and throat.

Ingestion: Ingestion may irritate the stomach lining.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percentage (W/W)	LD50s and LC50s route and species
Water	77	Oral LD50 (rat) >90mL/kg
7732-18-5		
Aluminum sulfate	23	Oral LD50 (rat) = 1930 mg/kg
10043-01-3		

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SECTION 4 – FIRST-AID MEASURES

Eye Contact: In the event of eye contact, or if eye contact is suspected, promptly wash eyes with copious amounts of water for at least 15 minutes. Seek medical evaluation immediately following rinsing.

Skin Contact: Upon contact, wash skin thoroughly with ample water for no less than 15 minutes. Obtain medical assistance. Remove and wash contaminated clothing before reusing.

Inhalation: Transfer the individual to fresh air. If the person is not breathing, administer artificial respiration. If breathing is labored, secure immediate medical help.

Ingestion: Do NOT induce vomiting. Never administer anything orally to an unconscious or seizing individual. Obtain urgent medical care. If vomiting occurs naturally, keep the individual's head lower than their hips to prevent aspiration of fluids into the lungs.

Notes to Physician: Treatment should utilize the physician's clinical judgment and account for the patient's specific symptoms.

SECTION 5 – FIRE-FIGHTING MEASURES

Flash Point: None.

Flash Point Method: Not applicable.

Autoignition Temperature: Data unavailable.

Flammable Limits in Air (%): Data not available.

Extinguishing Media: Employ extinguishing methods suitable for the surrounding materials on fire.

Special Exposure Hazards: Interaction with metals may produce flammable hydrogen gas.

Hazardous Decomposition/Combustion Products (under fire conditions): Emits corrosive and toxic fumes.

Special Protective Equipment: Firefighters should wear complete protective gear, including self-contained breathing apparatus.

NFPA Ratings for This Product: HEALTH 3, FLAMMABILITY 0, INSTABILITY 0

HMIS Ratings for This Product: HEALTH 3, FLAMMABILITY 0, REACTIVITY 0

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SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Utilize suitable protective gear when handling.

Environmental Precautionary Measures: Avoid discharge into waterways or drainage systems; employ containment methods such as diking if necessary.

Procedure for Cleanup: Ensure adequate ventilation of the area. Remove all potential ignition sources. Neutralize the spill with lime slurry, limestone, or soda ash. Absorb the spill with inert dry material and deposit in a proper waste disposal container. Use clean, non-sparking tools to gather the absorbed materials.

SECTION 7 – HANDLING AND STORAGE

Handling: This product is intended for industrial use only. Handle and open containers with caution. Avoid contact with eyes, skin, and clothing, and do not ingest. Avoid inhaling vapors. Remember, even empty containers may retain hazardous residues. Keep containers tightly closed when not in use and protect them from physical damage. Employ appropriate personal protective equipment. Note that aluminum sulfate in solution has an acidic pH and may corrode certain materials. Utilize corrosion-resistant equipment when transferring this chemical.

Storage: Store in a cool, dry, well-ventilated place away from heat and ignition sources. Follow standard industrial storage practices. Avoid exposure to direct sunlight and prevent physical damage. Keep separate from incompatible substances.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Employ local exhaust ventilation as required to keep exposure within the legal limits.

Respiratory Protection: Use a NIOSH/MSHA certified air-purifying respirator with cartridges suitable for acid gases, fumes, and mists for concentrations up to 20 mg/m³. Use an air-supplied respirator if concentrations exceed this level or are unknown.

Gloves: Utilize rubber, PVC, or vinyl gloves.

Skin Protection: Prevent skin contact by wearing appropriate protective clothing, gloves, and footwear tailored to the conditions and potential exposure levels. Selection should consider both durability and resistance to permeation.

Eyes: Wear chemical goggles. Employ a face shield as well if there is a risk of splashing.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are readily accessible near the workstation.

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Ingredients	Exposure limit – ACGIH	Exposure limit – OSHA	Immediately dangerous to life or health - IDLH
Water	Not available.	Not available.	Not available.
Sulfuric acid, aluminum salt	Not available.	Not available.	Not available.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid.
Colour:	Ranges from orange to brown.
Odour:	Mildly acidic.
pH:	Less than 2.
Specific Gravity:	Between 1.2 and 1.35.
Boiling Point:	Data not available.
Freezing/Melting Point:	Data not available.
Vapour Pressure:	40 mmHg at 35°C.
Vapour Density:	Data not available.
% Volatile by Volume:	Data not available.
Evaporation Rate:	Data not available.
Solubility:	Fully soluble.
VOCs (Volatile Organic Compounds):	Data not available.
Viscosity:	Data not available.
Molecular Weight:	Data not available.
Other:	No additional information available.

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: The product is stable under normal conditions.

Hazardous Polymerization: Hazardous polymerization will not occur.

Conditions to Avoid: Exposure to high temperatures.

Materials to Avoid: Strong bases, such as sodium hydroxide; violent reactions may occur. Also avoid contact with metals.

Hazardous Decomposition Products: Upon heating, sulfuric acid vapors may be emitted. Decomposition can release sulfur dioxide and sulfur trioxide.

Additional Information: This product can be highly corrosive to most metals, including cast iron, steel, and aluminum. The degree of corrosivity is influenced by factors such as concentration, temperature, and the presence of impurities.

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SECTION 11 – TOXICOLOGICAL INFORMATION

Principal Routes of Exposure

Ingestion: Ingestion may irritate the stomach lining.

Skin Contact: Exposure can lead to mild to moderate irritation. While aluminum has low skin absorption and is unlikely to cause toxic effects after brief contact, prolonged or repeated exposure can result in skin defatting, dryness, discomfort, and localized redness.

Inhalation: Breathing in vapors or mists of the product can irritate the respiratory system, including the mouth, nose, and throat.

Eye Contact: Exposure may cause eye irritation, ranging from mild to moderate.

Additional Information: Repeated and prolonged skin contact may lead to defatting and drying, causing skin irritation and dermatitis. There is also a potential to cause asthma, lung diseases, and skin diseases.

Acute Test of Product

Acute Oral LD50: For rats, the LD50 is greater than 9000 mg/kg, indicating low toxicity.

Acute Dermal LD50: Data not available.

Acute Inhalation LC50: Data not available.

Carcinogenicity

Ingredients	IARC – carcinogens	ACGIH - carcinogens
Water	Not listed.	Not listed.
Sulfuric acid, aluminum salt	Not listed.	Not listed.

Carcinogenicity comment: No additional information available

Reproductive toxicity/teratogenicity/embryotoxicity/mutagenicity: Not available.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicological Information

Ingredients	Ecotoxicity – fish species data	Acute crustaceans toxicity	Ecotoxicity – freshwater algae data
Water	Not available.	Not available.	Not available.
Sulfuric acid, aluminum salt	LC50 96 h (Carassius auratus) 100 mg/L LC50 96 h (Gambusia affinis) 37 mg/L static	Not available.	Not available.

Other information: may be harmful to aquatic life

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SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal of Waste Method: Dispose of all waste materials in accordance with local, state, and federal environmental regulations.

Contaminated Packaging: Recycle or dispose of empty containers at an approved waste management facility, following all applicable regulations.

SECTION 14 – TRANSPORTATION INFORMATION

DOT (U.S.)

DOT Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Aluminum Sulfate)

DOT Hazard Class: 8

DOT UN Number: UN3264

DOT Packing Group: III

DOT Reportable Quantity (lbs): Data not available.

Note: No additional remarks.

Marine Pollutant: No.

TDG (Canada)

TDG Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Aluminum Sulfate)

Hazard Class: 8

UN Number: UN3264

Packing Group: III

Note: No additional remarks.

Marine Pollutant: No.

SECTION 15 – REGULATORY INFORMATION

Canadian Regulations: This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no) *
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product are listed on the inventory administered by the governing country(s) or are exempt.

A "No" indicates that one or more components of the product are not listed on the inventory administered by the governing country(s)

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SECTION 16 – OTHER INFORMATION

These SDS summaries at the date of issue our best knowledge of the health and safety hazard information of the product, and how to safely handle and use the product in the workplace. Since SingleTrack Solutions cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company. Our responsibility for product as sold is subject to our standard term and conditions, a copy of which is sent to our customers and is also available upon request.

Last Revision Date: 5/2/2024