


Safety Data Sheet

Section 1. Identification		
Product Identifier	Aluminium Sulfate	Version: 6 Effective Date: 25 January 2021
Other Means Of Identification	Alum	
Initial Supplier Identifier	Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055	
Recommended Use and Restrictions On Use	Pulp & paper industry, textile processing, water treatment, food additive, soaps, greases, drugs and cosmetics. No restrictions.	
Restrictions on use	None	
Product Family	Inorganic Salt	
Emergency Phone	1-855-887-2055 Monday - Friday 8:00am - 4:30pm MST	

Section 2. Hazard Identification	
Hazard Classification	
Health Hazards	Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 1
Signal Word	Danger
Hazard Statement	Causes skin irritation. Causes serious eye damage.
Precautionary Prevention Statement	Wash hands thoroughly after handling. Wear protective gloves, and eye & face protection.
Precautionary Response Statement	IF ON SKIN: Wash with plenty water. Specific treatment: Do not induce vomiting unless directed by medical personnel. If skin irritation occurs, seek medical attention. Remove contaminated clothing and launder before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately seek medical attention
Precautionary Storage Statement	No statements.

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Precautionary Disposal Statement	Dispose of contents/containers in accordance with local regulations.
Other Hazards	None

Section 3. Composition / Information on Ingredients

Chemical Name	Common Name or Synonyms	CAS NO. and Other Unique Identifiers	% by weight
Aluminium sulphate	Alum	16828-12-9	100

Section 4. First-Aid Measures

Eye Contact	Flush eyes with water for 15 minutes. Seek medical attention.
Skin Contact	Flush area with water. If irritation persists, seek medical attention. Launder clothing before reuse.
Inhalation	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
Ingestion	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
Most Important Symptoms and Effects Both Acute and Delayed	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. May cause irritation and inflammation of the eye. Concentrated solutions (over 20%) may cause severe eye damage or burns.
Immediate Medical Attention and Special Treatment	Aluminum soluble salts may cause gastroenteritis if ingested. Treatment includes the use of demulcents.

Section 5. Fire-Fighting Measures

Suitable and Unsuitable Extinguishing Media	Use extinguishing media suitable for surrounding fire.
Hazardous Combustion Products	Oxides of sulphur, aluminium oxides, and corrosive fumes.
Specific Hazards Arising From The Product	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.

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Special Protective Equipment and Precautions For Fire-Fighters	Fire-fighters should wear self-contained breathing apparatus and full protective clothing. Use water spray to cool containers and structures exposed to fire.
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Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures	Gloves, coveralls, safety glasses. Secure area. Evacuate unnecessary personnel. Minimize the generation of dust.
Environmental Precautions	Do not allow spilled material to enter sewers and surface watercourses.
Methods and Materials for Containment and Clean-Up	Sweep up spilled material, being careful not create dust. Place material in a suitable container for disposal. Neutralize residues with lime slurry, limestone or soda ash. This will generate carbon dioxide requiring additional ventilation.

Section 7. Handling and Storage

Precautions For Safe Handling	Handle with care. Avoid inhaling dust. Avoid contact with skin and eyes.
Conditions For Safe Storage	Store in a cool, DRY well ventilated area. Keep containers closed when not in use. Keep away from incompatible materials.

Section 8. Exposure Controls / Personal Protection

Control Parameters	TWA: 8 Hr	STEL: 15 min	Ceiling	IDLH *
Aluminium sulphate	2 mg/m ³			
	* Immediately Dangerous to Life and Health			
Exposure Controls	Local exhaust ventilation			
Appropriate Engineering Controls	Safety shower and eye wash station.			
Individual Protective Measures	If exposure limits are exceeded:			
Eye / Face Protection	Safety glasses			
Skin Protection	Chemical resistant coveralls, gloves			
Respiratory Protection	Air purifying respirator fitted with HEPA filters			

Section 9. Physical and Chemical Properties	
Appearance	White to off white, powder or granules
Odour	No odour
Odour Threshold	Not applicable.
pH	>2.9 @ 5% solution.
Flash Point	No data
Boiling Point and Boiling Range	No data
Melting Point and Freezing Point	86 °C
Evaporation Rate	Not applicable.
Flammability (solid, gas)	Not flammable
Upper and Lower Flammability or Explosive Limits	No data
Vapour Pressure	Not applicable.
Vapour Density	Not applicable.
Relative Density	1.61
Solubility	Soluble
Partition co-efficient, n-Octanol/Water	No data
Auto-ignition Temperature	No data
Decomposition Temperature	No data
Viscosity	Not applicable

Section 10. Stability and Reactivity	
Reactivity	Alkalis and water reactive materials, such as oleum, cause exothermic reactions.
Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur
Conditions to Avoid	Temperatures above 760 °C.
Incompatible Materials	Contact with water forms sulphuric acid. Water reactive materials such as oleum cause exothermic reactions. Strong bases, strong oxidizing agents, and alkalis.
Hazardous Decomposition Products	Not expected to decompose under normal conditions of use. At temperatures above 760 °C, sulphur oxide gases are released which are toxic, corrosive and are oxidizers. The remaining residues are caustic. The trioxide is also a fire hazard, Oxides of aluminium. May corrode ferrous metals and mild steel in the presence of moisture.

Section 11. Toxicological Information	
Component Toxicity	LD50 Oral LD50 Dermal LC50 Inhalation
Aluminium sulphate	>9g/kg (Rat)
Likely Routes of Exposure	
Skin:	May cause irritation with prolonged and repeated contact as either powder or in liquid form.
Eyes:	May cause mild to severe irritation or burns as the dust becomes acidic if in contact with water.
Inhalation:	Dust or mists will cause irritation of the respiratory tract.
Ingestion:	May cause irritation of the digestive tract leading to vomiting, nausea and purging. Acute exposure can lead to incoordination, muscle spasms, and kidney effects.
Acute Toxicity Estimates (ATE)	Alkalis and water reactive materials, such as oleum, cause exothermic reactions
STOT (Specific Target Organ Toxicity) – Single Exposure	Not classified
Aspiration Toxicity	Not classified
STOT (Specific Target Organ Toxicity) – Repeated Exposure	Not classified
Skin Corrosion / Irritation	Irritant
Serious Eye Damage / Irritation	Serious eye damage
Respiratory or Skin Sensitization	Not classified
Carcinogenicity	Not listed.
Reproductive Toxicity	
- Sexual Function and Fertility	Not classified
- Development of Offspring	Not classified
- Effects on or via Lactation	Not classified
Germ Cell Mutagenicity	Not classified
Interactive Effects	None known
Other Information	None known



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Section 12. Ecological Information	
Ecotoxicity	No data
Persistence and Degradability	No data
Bioacumulative Potential	No data
Biodegradability	No data
Mobility in Soil	Not available
Other Adverse Effects	The products of degradation are more toxic than the original products. Degradation products are: carbon monoxide, dioxide, and oxides of sulphur. This can lead to acidic conditions and the potential release of trace metals.

Section 13. Disposal Considerations	
Disposal Considerations	Dispose of contents/container in accordance with local regulations.

Section 14. Transport Information	
UN Number	3077
UN Proper Shipping Name	Environmentally hazardous substance, Solid, N.O.S. (Aluminium sulfate)
Transport Hazard Class(es)	9
Packaging Group	III
Environmental Hazards	Not applicable
Bulk Transport	Not applicable
Special Precaution	Not applicable
DOT Erg#	171

Section 15. Regulatory Information	
Canada – DSL Inventory	All components of this product are either on the Domestic Substances List (DSL), Non-Domestic Substances List (NDSL), or exempt
TSCA	All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt
Additional Information	None

Section 16. Other Information	
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Manufacturer of Specialty Chemicals

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NFPA Rating	Health-2/ Flammability-0/Reactivity-1/Special Hazard-Not applicable
HMIS Rating	Health-2/Flammability-0/Reactivity-1/Personal Protection-See Section 8.
Prepared by:	Chemfax Products Ltd., Technical Department
Date Prepared:	17 August, 2012
Date of Latest Revision:	25 January 2021
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