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Section 01 - Identification

Product Identifier	Sodium Aluminate solution 45%
Product code	SS-4560
Product Use and Restriction on	Water treatment, paper manufacturing, and petroleum exploration.
Initial Supplier Identifier	Laboratoire MAT Inc. 610 Adanac street Quebec QC G1C 7B7 CANADA www.labmat.com
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Section 02 - Hazard Identification

GHS-Classification

Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Irritation	Category 1

Physical Hazards

Corrosive to Metals	Category 1
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Danger

Hazards Statements

H314 – Causes severe skin burns and eye damage.
H290 – May be corrosive to metals.

Pictograms



Precautionary Statements

P405 – Store locked up.
P234 – Keep only in original container.
P260 – Do not breathe mist, vapours or spray.
P280 – Wear protective gloves, protective clothing, eye protection, and face protection.
P301 + P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin.
P363 – Wash contaminated clothing before reuse.
P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P310 – Immediately call a POISON CENTER or doctor/physician.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P390 – Absorb spillage to prevent material damage.

P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Sodium Aluminate	1302-42-7	45%	
Water	7732-18-5	55%	

Section 04 - First Aid Measures

Inhalation	Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention.
Skin Contact / Absorption	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.
Eye Contact	Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. If a contact lens is present, remove only if easy to do so. Seek immediate medical attention.
Ingestion	Immediately rinse mouth out with water. Do not induce vomiting. Give large amounts of water or milk. Seek immediate medical attention.
Additional Information	In all cases you must act rapidly. After first aid measures, consult a physician except in minor cases of inhalation or skin contact.

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Product does not burn. Use appropriate extinguishing media for material that is supplying the fuel to the fire.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	Hydrogen chloride and oxides of aluminum, carbon, nitrogen, ammonia.
Special Protective Equipment and Precautions for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
Further Information	Do not release runoff from fire control methods to sewers or waterways.

Section 06 - Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.
Environmental Precautions	Prevent material from entering sewers.
Methods and Materials for Containment and Cleaning Up	Neutralize with sodium carbonate, caution should be taken as carbon dioxide may form. Absorb spill with inert material like dry sand or earth, then place in a chemical waste container.

Section 07 - Handling and Storage

Precautions for Safe Handling	Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.
Conditions for Safe Storage	Store in a well ventilated area at temperatures above 10°C and below 35°C. Store away from incompatible materials. Keep separate from populated work areas. Do not store in containers made of aluminum, tin or zinc or alloys of these.
Incompatibilities	Do not mix with strong acids without preliminary dilution and agitation to prevent violent or explosive reaction. Product can react explosively with aldehydes and many other organic chemicals. Aluminium, tin, zinc and alloys containing these metals corrode in contact with the product.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Aluminum	ACGIH	TWA	1mg/m ³
	OSHA	PEL	15mg/m ³ (total dust)
		PEL	5mg/m ³ (respirable fraction)

Engineering Control(s)

Ventilation Requirements	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
Other	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

Protective Equipment

Eyes/Face	Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.
Hand Protection	Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.
Skin and Body Protection	Body suite, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse. Impervious boots of chemically resistant material should be worn at all times. No special footwear is required other than what is mandated at place of work.
Respiratory Protection	Respiratory protection not normally required under normal use. If mist is being generated, wear NIOSH approved full face, air purifying respirator.
Thermal Hazards	Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State	Liquid
Colour	Clear, straw-coloured

Odour	Odourless
Odour Threshold	Not Applicable
<u>Property</u>	
pH	12.0 for a 1.0% solution
Melting Point/Freezing Point	1650°C
Initial Boiling Point and Boiling Range	~ 115°C
Flash Point	Not Applicable
Evaporation Rate	Not Available
Flammability	Non-Flammable
Upper Flammable Limit	Not Applicable
Lower Flammable Limit	Not Applicable
Vapour Pressure (mm Hg, 20°C)	Not Available
Vapour Density (Air=1)	1.0
Relative Density	Not Available
Solubility(ies)	Completely miscible
Partition Coefficient: n-octanol/water	Not Available
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	Not Available
Viscosity	Not Available
Explosive Properties	Not Applicable
Specific Gravity (Water=1)	1.52 at 25°C
% Volatiles by Volume	Not Available
Formula	NaAlO ₂
Molecular Weight	81.97

Section 10 - Stability and Reactivity

Reactivity	Not Available
Stability	Product is stable
Possibility of Hazardous Reactions	Hazardous polymerization does not occur.

Conditions to Avoid	Contact with strong mineral acids, excessive heat. Do not mix with strong acids without preliminary dilution and agitation to prevent violent or explosive reaction. Product can react explosively with aldehydes and many other organic chemicals. Avoid contact with mineral acids, excessive heat and bases/alkalis.
Incompatible Materials	Do not mix with strong acids without preliminary dilution and agitation to prevent violent or explosive reaction. Product can react explosively with aldehydes and many other organic chemicals. Aluminium, tin, zinc and alloys containing these metals corrode in contact with the product.
Hazardous Decomposition Products	Decomposes to toxic fumes of oxides of sodium (Na ₂ O) when a thermal decomposition takes place.

Section 11 - Toxicological Information

Acute Toxicity

Component	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Sodium Aluminate	Not Available	Not Available	Not Available

Chronic Toxicity – Carcinogenicity

Component	IARC
Sodium Aluminate	Not considered to be carcinogenic by NTP, IARC, and OSHA.

Skin Corrosion/Irritation	Corrosive. Capable of producing severe burns, blisters, ulcers and permanent scarring.
Ingestion	Ingestion can cause corrosive burns to the mouth, throat, and esophagus. Small amount of product which enters the lungs during ingestion or vomiting (aspiration) can cause serious lung injury and death.
Inhalation	Damage to the upper respiratory tract and lungs may result from exposure to the mist or dust from this product.
Serious Eye Damage/Irritation	Corrosive. Capable of producing serious eye burns and permanent damage, including blindness.
Respiratory or Skin Sensitization	Product is not a sensitizer
Germ Cell Mutagenicity	Not Available
Reproductive Toxicity	Not a known teratogen.
STOT-Single Exposure	Damage to the upper respiratory tract and lungs may result from exposure to the mist or dust from this product.
STOT-Repeated Exposure	Repeated and prolonged exposure of the skin or eyes to low concentrations of liquid can cause dermatitis and conjunctivitis. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
Aspiration Hazard	Not Available
Synergistic Materials	Not Available

Section 12 – Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Sodium Aluminate	Not Available	LC ₅₀ (Gambusia affinis, 96hr): 111 mg/L	Not Available

Biodegradability When released into the soil, this material is not expected to biodegrade.

Bioaccumulation	Not Available
Mobility	When released into the soil, this material may leach into groundwater.
Other Adverse Effects	Not Available

Section 13 – Disposal Considerations

Waste From Residues/Unused Products	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 – Transport Information

UN Number	UN1819	
UN Proper Shipping Name	SODIUM ALUMINATE SOLUTION	
Transport Hazard Class(es)	8	
Packaging Group	II	
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.	
Special Precautions	Not Available	
Transport in Bulk	Not Available	
Additional Information	<u>Packing Group</u>	<u>Limited Quantity Index</u>
	II	1 L
	III	5 L

TDG

Other Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

Section 15 – Regulatory Information

NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

Section 16 – Other Information

Preparation Date

2025-01-08

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.