

Sodium aluminate

Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Product/Chemical Name:	Sodium aluminate, solution	Manufacturer:	HMIS H 3 F 0 R 0 PPE† †Sec. 11
Chemical Family:	Inorganic salt	Delta Chemical Corporation	
General Use:	Water Treatment Chemical	2601 Cannery Avenue	
Emergency Contact:	800-424-9300 Chemtrec	Baltimore, MD 21226-1595	
		Phone 410-354-0100 (7:00am 5:00pm) FAX 410-354-1021	

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number		% wt	
	Sodium aluminate	1302-42-7	31-45	
Sodium oxide	1310-73-2	3-7		
Water	7732-18-5	52-66		

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Sodium aluminate	none estab.	2 mg/m ³ <i>as aluminum</i>	none estab.	2 mg/m ³ <i>as aluminum</i>	none estab.	2 mg/m ³ <i>as aluminum</i>	none estab.

Section 3 - Emergency Overview

Description: Viscous colorless to amber liquid with no or very mild odor. Not flammable. Not volatile
Hazards: Corrosive; pH 14. Causes burns. Harmful by contact with skin and if swallowed. Risk of serious damage to eyes. Not flammable, but may release toxic vapors if decomposed in a fire.

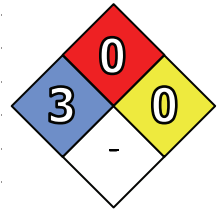
Section 4 - First Aid Procedures

Overview:	Direct contact can cause corrosive burns and permanent injury.
Inhalation:	(mist or spray) Remove from exposure; seek medical treatment if any symptoms occur.
Eye Contact:	Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting upper and lower lids. Seek medical attention.
Skin Contact:	Remove contaminated clothing and flush contact area with large amounts of water for at least 15 minutes. Seek medical attention if any symptoms are present.
Ingestion:	Do not induce vomiting, drink milk or water and immediately seek medical attention.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Section 5 - Physical and Chemical Properties

Physical State:	Liquid	Water Solubility:	Complete
Appearance:	Clear to amber	Freezing Point:	0° to 12° F (-18° to -11°C)
Odor Threshold:	Odorless	Boiling Point:	220° to 240°F
Vapor Pressure:	NA	% Volatile:	0.0
Specific Gravity (H₂O=1, at 4 °C):	1.44-1.56	Viscosity:	>2000 cps. @ 20°F 200-800 cps. @ 68°F
Vapor Density (Air=1):	NA	pH:	14.0

Section 6 - Fire-Fighting Measures**NFPA**

Flash Point:	NA
Burning Rate:	NA
Autoignition Temperature:	NA
LEL:	NA
UEL:	NA
Flammability:	Not flammable
Extinguishing Media:	NA
Unusual Fire or Explosion Hazards:	None
Hazardous Combustion Products:	None
Fire-Fighting Instructions:	Do not release runoff from fire control methods to sewers or waterways.

Section 7 - Stability and Reactivity

Stability:	Will generate heat on contact with water and will hydrolyze to sodium hydroxide and aluminum hydroxide.
Polymerization:	Hazardous polymerization does not occur.
Chemical Incompatibilities:	Incompatible with acids.
Hazardous Decomposition Products:	None.

Section 8 - Health Hazard Information

Primary Entry Routes:	Ingestion, contact
Target Organs:	N/A
Acute Effects:	Chemical (caustic) burns
Eye:	Chemical burn
Skin:	Chemical burn
Ingestion:	Burns, nausea, vomiting, diarrhea, stomach pain
Carcinogenicity:	IARC, NTP, and OSHA do not list Sodium aluminate as a carcinogen
Medical Conditions Aggravated by Long-Term Exposure:	Skin rashes
Chronic Effects:	IARC, NTP, and OSHA do not list

Section 9 - Spill, Leak, and Disposal Procedures

Spill /Leak Procedures:	Wear appropriate personal protective equipment. Do not come in contact with spilled material.
Small Spills:	Neutralize with sodium bicarbonate or weak acid solution.
Large Spills:	Dike and transfer spill to container for reuse and reprocessing. Can flush contaminated areas with large amounts of water and direct rinsing to chemical sewer or collect for treatment.
Cleanup:	Recover liquid when possible. Wash impacted areas with water to remove residues.
Regulatory Requirements:	Waste Sodium aluminate is not a RCRA listed hazardous waste. Waste material can be a RCRA Characteristic Waste (D002) if not neutralized.
Disposal:	Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, State, and local regulations.
Container Cleaning and Disposal:	Rinse with water, dispose of containers in accordance with State and local regulations.

Section 10 - Regulatory Information

EPA Regulations:	
RCRA Hazardous Waste Number:	Not listed (40 CFR 261.33), may be a Characteristic Waste (D002) (40 CFR 261.22) depending on pH.
RCRA Hazardous Waste Classification:	May be corrosive depending on waste pH.
CERCLA Hazardous Substance (40 CFR 302.4):	Not listed CWA, Sec. 311 (b)(4)
CERCLA Reportable Quantity (RQ):	Not listed
SARA 311/312 Codes:	Immediate (acute) health hazard
SARA Toxic Chemical (40 CFR 372.65):	Not listed
SARA EHS (Extremely Hazardous Substance) (40 CFR 355):	Not listed
OSHA Regulations:	
Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A):	Not listed
OSHA Specifically Regulated Substance (29CFR 1910.):	Not listed
State Regulations:	Delta Chemical Corporation has not determined regulatory requirements for individual states.

Section 11 - Exposure Controls / Personal Protection

Ventilation:	Under normal conditions, Sodium aluminate solution will not generate mists or vapors. No special ventilation is recommended.
Respiratory Protection:	Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.
Protective Clothing/Equipment:	Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.
Safety Stations:	Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
Contaminated Equipment:	Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.
Comments:	Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 12 - Special Precautions and Comments

Handling Precautions:	Ensure that all containers are labeled in accordance with OSHA regulations. Avoid skin and eye contact. Wear appropriate protective clothing. Material is slippery; use caution if walking on spilled material.
Storage Requirements:	Keep containers tightly closed when not in use.

Section 13 - DOT Transportation Data (49 CFR 172.101)

Proper Shipping Name:	UN1819, Sodium aluminate, solution, 8, II	Packaging Authorizations	
		a) Exceptions:	173.154
		b) Non-bulk Packaging:	173.203
		c) Bulk Packaging:	173.241
Shipping Symbols:	-	Quantity Limitations	
Hazard Class:	8	a) Passenger, Aircraft, or Railcar:	1 L
DOT No.:	UN1819	b) Cargo Aircraft Only:	30 L
Packing Group:	II	Vessel Stowage Requirements	
Label:	Corrosive	a) Location:	A
Special Provisions (172.102):	IB3,T4,TP1	b) Other:	52
2004 Emergency Response Guidebook:	Guide 154		

Prepared By: Craig T. Owen

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Disclaimer: The information presented herein is believed to be accurate and reliable, but is given without guaranty or warranty, expressed or implied. The user should not assume that all safety measures are indicated so that other measures may not be required. The user is responsible for assuring that the product and equipment are used in a safe manner that complies with all appropriate legal standards and regulations.