



# Sodium aluminate

MSDS No. 132  
4/30/2013

## Safety Data Sheet

### Section 1 - Chemical Product and Company Identification

<b>Product/Chemical Name:</b>	Sodium aluminate, solution	<b>Manufacturer:</b>	<b>HMIS</b> <b>H 3</b> <b>F 0</b> <b>R 0</b> <b>PPE†</b> †Sec. 11
<b>Chemical Family:</b>	Inorganic salt	USALCO, LLC	
<b>General Use:</b>	Water Treatment Chemical	2601 Cannery Ave Baltimore, MD 21226	
<b>Emergency Contact:</b>	800-282-5322	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 hydroxide	1310-73-2	3-9
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 <sup>3</sup> as aluminum	none estab.	2 mg/m <sup>3</sup> as aluminum	none estab.	2 mg/m <sup>3</sup> as aluminum	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

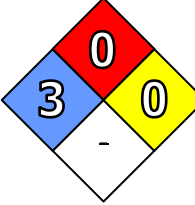
<b>Overview:</b>	Direct contact can cause corrosive burns and permanent injury.
<b>Inhalation:</b>	(mist or spray) Remove from exposure; seek medical treatment if any symptoms occur.
<b>Eye Contact:</b>	Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting upper and lower lids. Seek medical attention.
<b>Skin Contact:</b>	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.
<b>Ingestion:</b>	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

<b>Physical State:</b>	Liquid	<b>Water Solubility:</b>	Complete
<b>Characteristics</b>	Clear to amber liquid	<b>Melting/Freezing Point:</b>	0° to 12° F (-18° to -11°C)
<b>Odor:</b>	Odorless	<b>Boiling Point:</b>	220-240°F (104-116 °C)
<b>Vapor Pressure:</b>	Not applicable	<b>% Volatile:</b>	0.0
<b>Specific Gravity (H<sub>2</sub>O=1, at 4 °C):</b>	1.44-1.56	<b>Viscosity:</b>	>2000 cps. @ 20°F 200-800 cps. @ 68°F
<b>Vapor Density (Air=1):</b>	Not applicable	<b>pH:</b>	14.0

### Section 6 - Fire-Fighting Measures

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

### Section 7 - Stability and Reactivity

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

### Section 8 - Health Hazard Information

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

### Section 9 - Spill, Leak, and Disposal Procedures

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

### Section 10 - Regulatory Information

<b>EPA Regulations:</b>	
RCRA Hazardous Waste Classification:	D002 (Corrosive) if the pH of the waste is $\geq 12.5$
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
<b>OSHA Regulations:</b>	
Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A):	Not listed
OSHA Specifically Regulated Substance (29CFR 1910.):	Not listed
<b>State Regulations:</b>	USALCO, LLC has not determined regulatory requirements for individual states.

### Section 11 - Exposure Controls / Personal Protection

<b>Ventilation:</b>	Under normal conditions, Sodium aluminate solution will not generate mists or vapors. No special ventilation is recommended.
<b>Respiratory Protection:</b>	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.
<b>Protective Clothing/Equipment:</b>	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.
<b>Safety Stations:</b>	Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
<b>Contaminated Equipment:</b>	Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.
<b>Comments:</b>	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

<b>Handling Precautions:</b>	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.
<b>Storage Requirements:</b>	Keep containers tightly closed when not in use.

### Section 13 - DOT Transportation Data (49 CFR 172.101)

<b>Proper Shipping Name:</b>	UN1819, Sodium aluminate, solution, 8, II	<b>Packaging Authorizations</b>	
		a) Exceptions:	173.154
		b) Non-bulk Packaging:	173.203
<b>Shipping Symbols:</b>	-	c) Bulk Packaging:	173.241
<b>Hazard Class:</b>	8	<b>Quantity Limitations</b>	
<b>DOT No.:</b>	UN1819	a) Passenger, Aircraft, or Railcar:	1 L
<b>Packing Group:</b>	II	b) Cargo Aircraft Only:	30 L
<b>Label:</b>	Corrosive	<b>Vessel Stowage Requirements</b>	
<b>Special Provisions (172.102):</b>	IB3,T4,TP1	a) Location:	A
<b>2008 Emergency Response Guidebook:</b>	Guide 154	b) Other:	52

**Prepared By:** Craig T. Owen  
**Effective Date:** 2/1/2012 **Supercedes:** NA

**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.