



Aqua Chemical Supply, Inc.

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1. PRODUCT AND COMPANY IDENTIFICATION			
Product Name:	Sodium Aluminate, SAX...19, SAX-23, SAX-24		
Chemical Family:	Inorganic Salts		
Formula:	NaAlO ₂		
Synonym:	Sodium Aluminate Solution		
Acceptable Product Uses:	Water treatment		
Emergency telephone number: For emergency assistance involving chemicals call CHEMTREC day or night at: 1-800-424-9300			
2. HAZARDS IDENTIFICATION			
Principal Risk: I	Irritating to skin, eyes, respiratory and digestive tracts.		
Potential Effects on Health:	Acute and chronic.		
Carcinogenicity:	Does not contain any known carcinogens or potential carcinogens		
3. COMPOSITION / INFORMATION ON INGREDIENTS			
Component	% (w/w)	ACGIHTWA	CAS NO.
Sodium Aluminate	38-46	2 mg/m ³ (TWA) (as Aluminum salts)	1302-42-7
Sodium Hydroxide	5	2 mg/m ³ (STEL)	1310-73-2
Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.			
4. FIRST AID MEASURES			
General: If you feel unwell, seek medical attention (show the label or this MSDS if possible). Ensure that medical personnel are aware of the material(s) involved.			
Skin Contact: Avoid contact with skin. Remove contaminated clothing, jewelry, and shoes. Wash affected area with soap or mild detergent and running water for at least 15 minutes. If irritation develops, get medical attention.			
Eye Contact: Flush, immediately with water for at least 15 minutes, occasionally lifting upper and lower lids to be sure rinsing is complete. Get medical attention,			
Inhalation: Move to fresh air. Give artificial respiration ONLY if breathing has stopped. Do not use mouth-to-mouth method if victim has ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Obtain medical attention if cough or other symptoms develop,			
Ingestion: DO NOT INDUCE VOMITING. If conscious, give two (2) glasses of water or milk of magnesia. Do not give anything by mouth to an unconscious person. Get medical attention.			
5. FIRE FIGHTING MEASURES			
Flash point	Not applicable. Will not burn		
Upper and Lower Flammable Limits	Not applicable		
Autoignition Temperature	Not applicable		
Combustion and Thermal Decomposition Products	Aluminum oxides		

Rate of Burning	Does not burn
Explosive Power	Not applicable
Sensitivity to Static Discharge	Not available
Fire and Explosion Hazards: During a fire, irritating/toxic and corrosive fumes may evolve.	
Extinguishing Media: The substance is not combustible. Use extinguishing media appropriate to the surrounding fire.	
6. ACCIDENTAL RELEASE MEASURES	
Restrict access until clean-up operations are complete. Wear appropriate Personal Protective Equipment per Section B. Ensure trained personnel conduct clean up and wear Personal Protective Equipment per Section 8. Stop leak if possible. Avoid personal risk. Notify Authorities if release exceeds reportable quantity per Section 15	
Small Spills - Absorb spill with clay or dry material or neutralize with dilute acid (vinegar preferred) , followed by flushing with water and covering the area with sodium carbonate. Collect the residues in an appropriate container for disposal.	
Large Spills - Prevent entry into sewers and confined areas. Dike, if possible. Keep unnecessary people away, isolate area and deny entry. Pump liquid material into appropriate vessels if possible or absorb spill with clay absorbents or non-reactive dry materials and collect in an appropriate container for disposal. Notify the appropriate environmental authorities.	
7. HANDLING AND STORAGE	
Handling: Handle all chemicals with respect. Review the label, this MSDS and any other applicable information before use. Keep separated from incompatible substances. Use appropriate Personal Protective Equipment per Section 8. Handle only with equipment materials and supplies specified by their manufacturer as being compatible and appropriate for use with this product.	
Storage Requirements: Handle in containers, piping, and pumps made of steel, stainless steel, FRP or plastic. Avoid prolonged skin contact Product should be used within one year.	
8. EXPOSURE CONTROLS / PERSONAL PROTECTION	
Preventive Measures:	
Engineering Controls: A ventilation system of local/general exhaust is recommended to keep employee exposure below the Airborne Exposure Limits. Ensure that eyewash station and safety showers are proximal to the workstation location.	
Personal Protection Equipment:	
Eye Protection: Wear splash resistant chemical goggles and, where splashing is possible, a full face shield. Maintain eye wash fountain and quick-drench facilities in work area.	
Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate to avoid skin contact.	
Recommended Protective Material: Neoprene or equivalent. Never use leather. Respiratory Protection: Under conditions of misting or contact with head gases, respiratory protection may be needed. Consider respirator warning properties before use.	
<ul style="list-style-type: none"> • With limited contact use an appropriate chemical cartridge respirator. 	
When cleaning, decontaminating or performing maintenance on tanks, containers, piping systems and accessories, and in any other situations where airborne contaminants and/or dust could be generated, use protective equipment to protect against ingestion or inhalation. HEPA or air supplied respirator, full protective coveralls with head cover, gloves and boots or chemical suits, and boots are suggested.	

9. PHYSICAL AND CHEMICAL PROPERTIES	
Appearance	Straw Yellow
Odor:	Odorless
Form:	Liquid
pH	12 for a 1 % solution
Vapor Pressure	N/A
Boiling Point	116 °C (240 °F)
Specific Gravity (25°C)	1.457-1.55
Solubility (water)	soluble
Vapor Density (Air=1)	N/A
Percent by Volume	N/A
Freezing Point:	-32 °C (-26°F)
10. STABILITY AND REACTIVITY	
Decomposes to toxic fumes of oxides of sodium (Na ₂ O) when thermal decomposition occurs.	
Chemical Stability: Stable at normal temperatures and pressure.	
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	
Incompatibility with other substances: Corrodes steel. Incompatible with carbon steel, aluminum, carbon, brasses and nylon.	
Hazardous Polymerization. Will not occur.	
11. TOXICOLOGICAL INFORMATION	
Toxicological Data: Sodium Aluminate: No quantitative data available.	
Sodium hydroxide: Irritation data:	
500 mg/24 hour(s) skin-rabbit severe; 400 µg eyes-rabbit mild: 1 percent eyes-rabbit severe:	
Toxicity data: 1360 mg/kg skin-rabbit LD50; 104-340 mg/kg oral-rat LD50	
Mutagenicity: No data available	
Reproductive Effects: No data available	
Teratogenicity and Genotoxicity: No data available	
Synergistic Materials: None known	
12. ECOLOGICAL INFORMATION	
Eco-toxicological Information: Chemical oxygen demand (COD): 1,420 mg/l	
Biochemical oxygen demand (5-day BOD): 921 mg/l	
Aquatic data: Results shown below are based on similar products,	
96 hour static acute LC50 to Rainbow Trout = 172 mg/L	
96 hour no observed effect concentration is <100 mg/L based on no mortality or abnormal effects.	
Toxicity Rating: Moderately toxic.	
96 hour static acute LCSO to Fathead Minnow = 530 mg/L	
96 hour no observed effect concentration is 400 mg/L based on no mortality or abnormal effects_	
Toxicity Rating: Moderately toxic.	
48 hour static acute LC50 to Daphnia magna = 64 mg/L	
48 hour no observed effect concentration is 40 mg/L based on no mortality or abnormal effects.	
Toxicity Rating: Moderately toxic.	
Persistence and Degradation: No data available.	

13. DISPOSAL CONSIDERATION

Review Federal, State, Provincial, and Local government regulations prior to disposal. This material exhibits the characteristics of corrosivity to metals and other building materials and any disposal must comply with hazardous waste disposal requirements. Any residues and/or rinse waters from cleaning of tanks, containers, piping systems and accessories may be a hazardous characteristic waste and must be properly disposed of in accordance with federal, state, and local laws.

RCRA: Test waste material for corrosivity, D002, prior to disposal.

14. TRANSPORT INFORMATION

	Canada (TDG)	U.S. (DOT)
Shipping Name	Sodium Aluminate Solution	Sodium Aluminate Solution
Hazard Class/Division	B : Corrosive liquid	8 : Corrosive liquid
Identification No.	UN 1819	UN 1819
Packing Group :	II	II

15. REGULATORY INFORMATION**USA CLASSIFICATION:**

OSHA Classification: Hazardous by definition of Hazard Communication Standard (29 CFR 1920.1200)

CERCLA: 1000 liquid pounds.

SARA Regulations sections 313 and 40 CFR 372: Yes

SARA Hazard Category, SARA SECTIONS 311/312 (40CRF370.21):

Acute	Yes
Chronic	No
Fire	No
Reactive	No
Sudden Release	No
OSHA Process Safety (29CFR1910.119}	No

Clean Water Act Requirements: Designated as a hazardous substance under section 311(b)(2) (A) of the Federal Water Pollution Control Act and further regulated by the Clean Water Act Amendments of 1977 and 1978. These regulations apply to discharges of this substance.

TSCA: This substance or all ingredients of this product are listed on the Chemical Substances Inventory of the TSCA. Does not require reporting.

Other Regulations/Legislation which apply to this product: California Proposition 65: No

Right-To-Know Lists: Massachusetts, New Jersey, Pennsylvania, California

This product does not contain, nor is it manufactured with, ozone-depleting substances.

Canadian Classification

This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations) and this MSDS (Material Safety Data Sheet) contains all information required by the CPR.

Controlled Products Regulation (WHMIS) Classification: E: Corrosive

CEPA/Canadian Domestic Substances List (DSL): The substances in this product are on the Canadian Domestic Substances List (CEPA DSL). The presence on this list does not trigger any legal reporting.

16. OTHER INFORMATION

National Fire Protection Association (NFPA)	NFPA	and Hazardous System HMIS Rating	HMIS
Health	3		3
Fire	0		0
Reactivity	0		0

4 = Extreme/Severe
 3 = High/Serious
 2 = Moderate
 1 = Slight
 0 = Minimum

Notice

Aqua Chemical Supply, Inc. expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

Do not use ingredient information and/or ingredient percentages in this SDS as a product specification. For product specification information refer to a product specification sheet and/or a certificate of analysis. These can be obtained from your local Aqua Chemical Supply, Inc. sales office.

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