



SODIUM ALUMINATE SOLUTION

Safety Data Sheet

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product/Chemical Name: Sodium Aluminate Solution

Chemical Family: Inorganic aluminum salt

General Use: Drinking water treatment, papermaking and other manufacturing applications

Company Information:

GAC Chemical Corporation

34 Kidder Point Road

Searsport, Maine 04974 U.S.A.

Phone: 207-548-2525 FAX: 207-548-2891 Toll Free: 800-266-5155

Emergency Phone:

1-800-424-9300 Chemtrec (USA)

SECTION 2. HAZARDS IDENTIFICATION



Signal Word: DANGER

Hazard Statements: Causes severe skin burns and eye damage.
Harmful if swallowed or inhaled.
May be corrosive to metals

Precautionary Statements: Do not get in eyes, on skin or on clothing.
Wear eye and face protection and protective clothing.
Avoid release to the environment.
IF ON SKIN: Remove immediately all contaminated clothing. Rinse skin with shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Get immediate medical attention.
Wash contaminated clothing before reuse.
Collect spillage
Store in a closed container
Dispose of container in accordance with local, state, province and federal regulations.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance Sodium Aluminate Solution

Chemical Name: Sodium Aluminate CAS#: 11138-49-1 (38%)
Water CAS#: 7732-18-5 (62%)

Synonyms: Liquid Sodium Aluminate, Alka-Floc™

Impurities: NA. No impurities or additives which are themselves classified and which contribute to the classification of the substance.

SECTION 4. FIRST AID MEASURES

Inhalation of mist or liquid:

Remove person from source of exposure to fresh air. If breathing is difficult, administer oxygen. If not breathing, start CPR. Get medical attention immediately.

Skin contact:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Get medical attention immediately.

Eye contact:

Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention immediately.

Ingestion:

If fully conscious, drink as much water as can be tolerated. DO NOT induce vomiting. DO NOT neutralize with acidic juices. Get medical attention immediately.

Most Important Symptoms/Effects:

Inhalation:

Mists may severely irritate nose, throat, lungs, mucous membranes, respiratory tract. Mists may cause sore throat, coughing, sneezing, labored breathing, burning sensation. Effects will depend on concentration and length of time of exposure.

Skin contact:

Causes moderate to severe chemical burns.

Eye contact:

Causes moderate to severe chemical burns. May cause permanent eye damage and blindness.

Ingestion:

Can cause chemical burns of the mouth, throat, gastrointestinal tract. May cause pain, nausea, vomiting.

SECTION 5. FIRE FIGHTING MEASURES

Flammability:

Product is not flammable and will not burn.

Suitable Extinguishing Media:

For fires in area, use appropriate extinguishing media.

Specific Hazards Arising from the Chemical:

In a fire, dried product can decompose at elevated temperatures and may release toxic fumes/vapors. Exposure to products of decomposition during a fire may be hazardous. Spilled sodium aluminate solution can cause slippery footing.

Special Protective Equipment and Precautions for Firefighters:

Wear full protective fire fighting clothing including NIOSH approved self contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products.

SECTION 6. ACCIDENTAL RELEASE MEASURES**General:**

Site specific procedures to address accidental spills are necessary as dictated by facility design, location, staffing, containment structures, and regulatory requirements. Consult engineers if needed.

Personal Precautions, Protective Equipment and Emergency Procedures:

In the event of a spill, clear unnecessary personnel from spill area. If direct contact with spilled material is likely, use personal protective equipment recommended in Section 8. Maintain adequate ventilation. Spilled material will be slippery.

Methods and Materials for Containment and Cleaning Up:

Shut off source of leak if safe to do so. Manage spill using containment structures or inert materials and collect for reuse. Product not reused can be neutralized using dry citric acid or dry aluminum sulfate. Neutralized residue can be swept up or rinsed down with water and captured using absorbent materials for disposal in accordance with local, state, province, and federal regulations. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs.

SECTION 7. HANDLING AND STORAGE**Incompatible Chemicals:**

Avoid contact with acids and acidic (low pH) materials.

Containment:

To minimize the possibility of a release into the environment and contact with other incompatible chemicals, storage tanks and containers should have a dedicated liquid tight secondary containment system. Consult engineers if needed.

General Hygiene:

Do not eat, drink, take medication or smoke when direct contact is possible.

Always thoroughly wash hands after leaving a work area where contact is possible or has occurred.

Storage:

Keep storage tanks and containers closed and contents protected from dust, dirt, and moisture.

Clean storage tanks on a regular schedule based on inspection and experience.

Have storage tanks, containers, and transfer systems properly labeled for contents.

Have procedures for determining product quantity in storage tanks and for accepting deliveries.

Use tanks, transfer lines, pumps valves and process instrumentation designed for this material using approved materials of construction. Some materials commonly used are mild steel, stainless steel, some plastics, and FRP. Nonferrous metals and their alloys will be damaged by corrosion. Consult engineers if needed.

Temperature for Storage:

Preferred storage temperature range is 16°C-43°C (60°F-110°F).

Outside of these temperature ranges optimal product stability and shelf life may be affected.

Ventilation:

No special requirements.

Personal Protection:

If direct contact with material is likely use personal protective equipment.

SECTION 8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits

Ingredient: aluminum soluble salts

OSHA PEL	ACGIH TLV	NIOSH TLV	NIOSH
TWA 2mg/m ³ as Al	TWA 2mg/m ³ as Al	TWA 2mg/m ³ as Al	IDLH none est.
STEL none est.	STEL none est.	STEL none est.	

Respiratory - Ventilation:

Local passive ventilation is typically used. Under normal conditions respiratory protective equipment is not needed. If work requires direct exposure to product mist, use appropriate, NIOSH approved respiratory protection. Consult engineers if necessary.

Eye - Skin wash:

Have appropriate eye wash and safety shower stations available in the work area.

Eyes:

Use protective eye glasses with side shields/goggles and face shield protection to prevent direct contact.

Skin:

Wear impervious pants, jacket, gloves and boots.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid, clear to slight haze, off white to light amber tint.

Odor: No odor

Odor Threshold: NA

pH: >12.5 @ 25°C (77°F) as is basis

Melting/Freeze point: -10°C (14°F) approx.

Boiling point-range: 112°C-119°C (233°F- 246°F) approx.

Flash point: NA

Evaporation rate: NA

Flammability: Not flammable.

Upper/lower flammability limits: NA

Vapor pressure: NA

Vapor density: NA

Relative Density (Specific Gravity): 1.4-1.6 S.G. @ 21°C (70°F)

Water Solubility: Complete.

Partial coefficient: n-octanol/water: NA

Auto ignition: NA

Decomposition temperature: >200°C (392°F)

Viscosity: 200-800 cps @ 25°C (77°F)

SECTION 10. STABILITY AND REACTIVITY

Reactivity:

No data available

Chemical Stability:

Product is chemically stable under normal ambient temperature and conditions while stored or used.

Possibility of Hazardous Reactions:

Product will not polymerize.

Conditions to Avoid:

Avoid freezing. Keep away from incompatibles.

Incompatible Materials:

Acids and acidic materials and non-ferrous metals. Consult engineers if necessary.

Hazardous Decomposition Products:

At temperatures above 200°C (392°F) toxic fumes/vapors may be released.

SECTION 11. TOXICOLOGICAL INFORMATION**Toxicity:**

No data available.

HEALTH EFFECTS**Inhalation - Acute Exposure**

Mists may severely irritate nose, throat, lungs, mucous membranes, respiratory tract. Mists may cause sore throat, coughing, sneezing, labored breathing, burning sensation. Effects will depend on concentration and length of time of exposure.

Inhalation - Chronic Exposure

No data available.

Skin Contact - Acute Exposure

Causes moderate to severe chemical burns.

Skin Contact - Chronic Exposure

No data available.

Eye Contact - Acute Exposure

Causes moderate to severe chemical burns. May cause permanent eye damage and blindness.

Eye Contact - Chronic Exposure

No data available.

Ingestion - Acute Exposure

Can cause chemical burns of the mouth, throat, gastrointestinal tract. May cause pain, nausea, vomiting.

Ingestion - Chronic Exposure

No data available.

Sensitization:

Not sensitizing

Carcinogenicity:

NTP Not listed. IARC Not listed. OSHA Not listed.

Reproductive Toxicity, Mutagenic or teratogenic effects:

No known reproductive toxicity, mutagenic or teratogenic effects in animal experiments are known.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity (aquatic):****Sodium Aluminate (11138-49-1)**

Fish: 96 Hr LC50 Western Mosquitofish: 111,000 ug/L

Persistence and Degradability:

No information available

Bioaccumulation Potential:

This product is not expected to bioaccumulate.

Mobility in Soil:

No information available.

Other Adverse Effects:

No information available

SECTION 13. DISPOSAL CONSIDERATIONS

RCRA Hazardous Waste: Not listed. Waste product may be D002 under §261.22(a)(2) if the pH >12.5.

Neutralization:

Product can be neutralized using dry citric acid or dry aluminum sulfate. Neutralized residue can be swept up or rinsed down with water and captured using absorbent materials for reuse or disposal in accordance with local, state, province, and federal regulations.

Contaminated Packaging:

Packaging and storage containers that cannot be thoroughly cleaned must be disposed of in accordance with local, state, province, and federal regulations.

SECTION 14. TRANSPORTATION INFORMATION

Land (DOT), Sea (IMDG), Air (ICAO/IATA)

Identification Number: UN1819

Proper Shipping Name: Sodium Aluminate, Solution

Hazard Class: 8

Packing Group: II

Environmental Hazards: Marine pollutant: no; Hazardous substance: no

Special Precautions: None known

SECTION 15. REGULATORY INFORMATION

RCRA Hazardous Waste: Not Listed.

Unused, un-neutralized product may be a Characteristic Waste (D002). Consult engineers if necessary.

CERCLA Hazardous Substance: Not listed

CERCLA Reportable Quantity (RQ): NA

SARA 311/312 Categories:

Acute (immediate) health effects: Yes

Chronic (delayed) health effects: No

Sudden release of pressure hazard: No

Reactivity hazard: No

Fire hazard: No

SARA 313 Toxic Chemical Listing: Not listed

SARA Extremely Hazardous Substance (EHS): Not listed

OSHA Air (29CFR 1910.10000, Table Z-1, Z-1A): Not listed

OSHA Special Regulated Substance (29CFR 1910): Not listed

California Prop 65 Chemical: No

United States TSCA Section Inventory Status: Product exempt or listed on the TSCA Inventory.

State Regulations: State specific regulations have not been determined by GAC Chemical Corporation. Consult engineers if necessary.

SECTION 16. OTHER INFORMATION

NSF/ANSI 60 Drinking Water Treatment Chemicals:

Maximum use 105mg/L

HMIS Rating:

Health: 3

Flammability: 0

Reactivity: 0

NFPA Rating:

Health: 3

Fire: 0

Reactivity: 0

Special: NA

Preparatory Statement:

The information in this Safety Data Sheet (SDS) is correct to the best of our knowledge, information we have available, and belief as of the publication date. The information is designed solely as guidance for handling, storage, transportation, release, and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with other materials or in any process unless specified in the text.

Date Sources for the SDS:

Literature, databases, practice, publications, own tests, regulations

Revision:

February 2015 replaces all earlier

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