

Safety Data Sheet

Material Name: SODIUM ALUMINATE, SOLUTION

SDS ID: USA50543

*** Section 1 - PRODUCT AND COMPANY IDENTIFICATION ***

Synonyms

USALCO 38; USALCO 43; USALCO 45; LIQUID SODIUM ALUMINATE

Material Name: SODIUM ALUMINATE, SOLUTION

Manufacturer Information

USALCO, LLC
1120 Middle River Rd.
Baltimore, MD 21220

Emergency # 1-800-424-9300 (CHEMTREC)

Chemical Family

inorganic, salt

Product Use

water treatment, phosphorus removal, alumina source for catalyst, pigments and coatings

*** Section 2 - HAZARDS IDENTIFICATION ***

EMERGENCY OVERVIEW

Color: amber

Physical Form: liquid

Odor: odorless

Health Hazards: respiratory tract burns, skin burns, eye burns, mucous membrane burns

POTENTIAL HEALTH EFFECTS

Inhalation

Short Term: burns

Long Term: burns

Skin

Short Term: burns

Long Term: burns

Eye

Short Term: burns

Long Term: burns

Ingestion

Short Term: burns

Long Term: burns

*** Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS ***

CAS	Component	Percent	Symbol(s)	Risk Phrase(s)
11138-49-1	SODIUM ALUMINATE, SOLUTION 234-391-6	100	C	R:34

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Aluminium oxides.

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*** Section 4 - FIRST AID MEASURES ***

Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Skin

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get immediate medical attention. Thoroughly clean and dry contaminated clothing before reuse. Destroy contaminated shoes.

Eyes

Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion

If swallowed, drink plenty of water, do NOT induce vomiting. Get immediate medical attention.

Note to Physicians

For inhalation, consider oxygen.
Avoid gastric lavage or emesis.

*** Section 5 - FIRE FIGHTING MEASURES ***

See Section 9 for Flammability Properties

NFPA Ratings: Health: 3 Fire: 0 Reactivity: 1

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Flammable Properties

Negligible fire hazard.

Extinguishing Media

regular dry chemical, carbon dioxide, water, regular foam
Large fires: Use regular foam or flood with fine water spray.

Fire Fighting Measures

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Use extinguishing agents appropriate for surrounding fire. Do not get water directly on material. Large fires: Flood with fine water spray. Reduce vapors with water spray. Cool containers with water spray until well after the fire is out. Apply water from a protected location or from a safe distance. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Thermal Decomposition Products

Combustion: miscellaneous decomposition products

Sensitivity to Mechanical Impact

Not sensitive

Sensitivity to Static Discharge

Not sensitive

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*** Section 6 - ACCIDENTAL RELEASE MEASURES ***

Occupational spill/release

Do not touch spilled material. Stop leak if possible without personal risk. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Small dry spills: Move containers away from spill to a safe area. Large spills: Dike for later disposal. Keep unnecessary people away, isolate hazard area and deny entry.

*** Section 7 - HANDLING AND STORAGE ***

Store in a cool, dry place and in tightly sealed containers. Keep separated from incompatible substances.

Sodium aluminate solution is a suspended solids solution of alumina in sodium hydroxide. Under normal conditions, the solution is completely stable, however, there are several factors that may cause the material to precipitate. Do not let the material come into contact with moisture, dust or dirt. Avoid constant agitation or recirculation and do not put it under pressure. Any of the above actions may introduce contaminants to the solution which may cause precipitation.

*** Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ***

Component Exposure Limits

ACGIH and EU have not developed exposure limits for any of this product's components.

Ventilation

Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face

Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Protective Clothing

Wear appropriate chemical resistant clothing.

Glove Recommendations

Wear appropriate chemical resistant gloves.

While not normally required, respiratory protection may be required under conditions where extensive misting or fuming may occur due to insufficient or improper engineering controls.

*** Section 9 - PHYSICAL AND CHEMICAL PROPERTIES ***

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Material Name: SODIUM ALUMINATE, SOLUTION

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Physical State: Liquid	Appearance: Not available
Color: amber	Physical Form: liquid
Odor: odorless	Odor Threshold: Not available
pH: 14.0	Melting Point: 1650 - 1800 °C
Boiling Point: 116 °C	Flash Point: not flammable
Evaporation Rate: Not available	Vapor Pressure: Not available
Vapor Density (air = 1): Not available	Density: Not available
Specific Gravity (water = 1): >1.50 @ 49 °C	Water Solubility: soluble
Coeff. Water/Oil Dist: Not available	Viscosity: Not available
Volatility: Not available	Molecular Weight: 81.97
Molecular Formula: Na ₂ -Al ₂ -O ₄	

Solvent Solubility

Insoluble: alcohol

* * * Section 10 - STABILITY AND REACTIVITY * * *

Chemical Stability

Stable at normal temperatures and pressure.

Conditions to Avoid

None reported.

Materials to Avoid

acids

SODIUM ALUMINATE, SOLUTION:

ACIDS: May react violently with strong acids.

Thermal Decomposition Products

Combustion: miscellaneous decomposition products

Thermal decomposition products: sodium monoxide.

Possibility of Hazardous Reactions

Will not polymerize.

* * * Section 11 - TOXICOLOGICAL INFORMATION * * *

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

RTECS Acute Toxicity (selected)

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, or DFG.

RTECS Irritation

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

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Material Name: **SODIUM ALUMINATE, SOLUTION**

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Local Effects

SODIUM ALUMINATE, SOLUTION (11138-49-1)

Corrosive: inhalation, skin, eye, ingestion.

HEALTH EFFECTS

Inhalation - Acute Exposure

CORROSIVE SUBSTANCES: May cause severe irritation of the respiratory tract with coughing, choking, pain and possibly burns of the mucous membranes. In some cases, pulmonary edema may develop, either immediately or more often within a period of 5-72 hours. The symptoms may include tightness in the chest, dyspnea, frothy sputum, cyanosis, and dizziness. Physical findings may include moist rales, low blood pressure and high pulse pressure. Severe cases may be fatal.

Inhalation - Chronic Exposure

CORROSIVE SUBSTANCES: Depending on the concentration and duration of exposure, repeated or prolonged exposure may cause inflammatory and ulcerative changes in the mouth and possibly bronchial and gastrointestinal disturbances.

Inhalation - Other Toxicity Information

SODIUM ALUMINATE, SOLUTION: See information on corrosive substances.

Skin Contact - Acute Exposure

CORROSIVE SUBSTANCES: Direct contact may cause severe irritation, pain, and possibly burns.

Skin Contact - Chronic Exposure

CORROSIVE SUBSTANCES: Effects depend on concentration and duration of exposure. Repeated or prolonged contact may result in dermatitis or effects similar to acute exposure.

Skin Contact - Other Toxicity Information

SODIUM ALUMINATE, SOLUTION: See information on corrosive substances.

Eye Contact - Acute Exposure

CORROSIVE SUBSTANCES: Direct contact may cause severe irritation, pain and burns, possibly severe. The degree of injury depends on the concentration and duration of contact. The full extent of the injury may not be immediately apparent.

Eye Contact - Chronic Exposure

CORROSIVE SUBSTANCES: Effects depend on concentration and duration of exposure. Repeated or prolonged contact may result in conjunctivitis or effects as in acute exposure.

Eye - Other Toxicity Information

SODIUM ALUMINATE, SOLUTION: See information on corrosive substances.

Ingestion - Acute Exposure

CORROSIVE SUBSTANCES: May cause immediate pain and severe burns of the mucous membranes. There may be discoloration of the tissues. Swallowing and speech may be difficult at first and then almost impossible. The effects on the esophagus and gastrointestinal tract may range from irritation to severe corrosion. Edema of the epiglottis and shock may occur.

Ingestion - Chronic Exposure

CORROSIVE SUBSTANCES: Depending on the concentration, repeated ingestion may cause effects as with acute ingestion.

Ingestion - Other Toxicity Information

SODIUM ALUMINATE, SOLUTION: See information on corrosive substances.

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*** Section 12 - ECOLOGICAL INFORMATION ***

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

*** Section 13 - DISPOSAL CONSIDERATIONS ***

Disposal Methods

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262.
Hazardous Waste Number(s): D002.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

*** Section 14 - TRANSPORT INFORMATION ***

US DOT Information

Shipping Name: Sodium aluminate, solution
UN/NA #: UN1819 **Hazard Class:** 8 **Packing Group:** II
Required Label(s): 8

TDG Information

Shipping Name: Sodium aluminate solution
UN #: UN1819 **Hazard Class:** 8 **Packing Group:** II
Required Label(s): 8

ADR Information

Shipping Name: Sodium aluminate solution
UN #: UN1819 **Hazard Class:** 8 **Packing Group:** II
Required Label(s): 8

RID Information

Shipping Name: Sodium aluminate solution
UN #: UN1819 **Hazard Class:** 8 **Packing Group:** II
Required Label(s): 8

IATA Information

Shipping Name: Sodium aluminate solution
UN #: UN1819 **Hazard Class:** 8 **Packing Group:** II
Required Label(s): 8

ICAO Information

Shipping Name: Sodium aluminate solution
UN #: UN1819 **Hazard Class:** 8 **Packing Group:** II
Required Label(s): 8

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IMDG Information

Shipping Name: Sodium aluminate solution

UN #: UN1819 Hazard Class: 8 Packing Group: II

*** Section 15 - REGULATORY INFORMATION ***

U.S. Federal Regulations

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: Yes Chronic Health: No Fire: No Pressure: No Reactive: No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
SODIUM ALUMINATE, SOLUTION	11138-49-1	No	No	No	Yes	No	No

Not regulated under California Proposition 65

EU Marking and Labelling

Symbols

C Corrosive

Risk Phrases

R34 Causes burns.

Safety Phrases

S2 Keep out of the reach of children. S20 When using do not eat or drink. S24 Avoid contact with skin. S25 Avoid contact with eyes. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S27 Take off immediately all contaminated clothing. S39 Wear eye/face protection. S46 If swallowed, seek medical advice immediately and show this container or label.

Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
SODIUM ALUMINATE, SOLUTION	11138-49-1	No	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

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*** Section 16 - OTHER INFORMATION ***

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Full text of R phrases in Section 3

R34 Causes burns.

Other Information

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