

SAFETY DATA SHEET

Revision date 2015-03-12

Revision number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name WS-128

Other means of identification

Product code 3213M
Synonyms Liquid sodium aluminate

Recommended use of the chemical and restrictions on use

Recommended use [RU] No information available
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Anderson Chemical Company
325 South Davis Ave.
Litchfield, MN 55355
320-693-2477
Hours: Monday-Friday 8:00-5:00 CST (Central Standard Time)

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC: (800) 424-9300

Contact Point accomn.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Physical state liquid	Color amber	Appearance clear to slightly hazy	Odor no appreciable odor
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**DANGER****Hazard statements**

Causes severe skin burns and eye damage

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

- Not applicable

Unknown acute toxicity

- 32% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	weight-%	TRADE SECRET
Sodium aluminum oxide	1302-42-7	32%	--
Sodium Hydroxide	1310-73-2	8%	--
Water	7732-18-5	60%	--

*The exact percentage (concentration) of composition has been withheld as a trade secret

Alternate CAS Number(s)

An alternate CAS number for 1302-42-7 (Sodium aluminum oxide) is 11138-49-1 (Sodium Aluminate).

4. FIRST AID MEASURES

First Aid Measures**Eye contact**

Remove contact lenses, if worn. Immediately flush with plenty of water for at least 15 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. Seek medical advice immediately.

Skin contact

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Ingestion

Do not induce vomiting. Give large amounts of water followed by milk if available. If vomiting should occur spontaneously, keep airway clear. Seek medical advice immediately. Never give anything by mouth to an unconscious person.

Inhalation

Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Most important symptoms and effects, both acute and delayed**Acute effects**

Inhalation of corrosive substances may cause irritation of the respiratory tract with coughing, choking, pain and possible burns of the mucus membrane. 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, frothy sputum cyanosis, and dizziness. Physical findings may include low blood pressure and high pulse. Severe cases may be fatal. Eye and skin contact may cause severe irritation, pain and burns. Ingestion may cause immediate pain and severe burns of the mucous membrane. 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.

Chronic effects

Depending on the concentration, repeated ingestion may cause effects as with acute exposure. Effects depend on concentration and duration of exposure. Repeated or prolonged skin contact may result in dermatitis or effects similar to acute exposure. Repeated exposure by inhalation may cause inflammatory ulcerative changes to the mouth and possibly bronchial and gastrointestinal disturbances. Repeated or prolonged eye contact may result in conjunctivitis or effects similar to acute exposure.

Aggravated Medical Conditions

Existing skin, eye and lung conditions. Persons with kidney disorders have an increased risk from exposure based on general information found on aluminum salts.

Indication of any immediate medical attention and special treatment needed**Note to physicians**

Aluminum soluble salts may cause gastroenteritis if ingested. Treatment includes the use of demulcents. Note: Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

5. FIRE-FIGHTING MEASURES**Extinguishing media****Suitable extinguishing media**

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

No information available

Special hazards arising from the substance or mixture**Special Hazard**

May produce hazardous fumes or hazardous decomposition products.

Advice for firefighters

Firefighting measures

Product is a water solution and nonflammable. In a fire, this product may build up pressure and rupture a sealed container; cool exposed containers with water spray. Use self-contained breathing apparatus in confined areas; avoid breathing mist or spray.

Special protective equipment for firefighters

Full protective clothing and approved self-contained breathing apparatus required for firefighting personnel.

Explosion data**Sensitivity to Mechanical Impact**

None.

Sensitivity to Static Discharge

None.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal precautions**

Wear suitable protective clothing and gloves.

Environmental precautions**Environmental precautions**

Do not allow liquid to enter streams or waterways.

Methods and material for containment and cleaning up**Methods for containment**

Prevent further leakage or spillage if safe to do so. Build dikes as necessary to contain flow of large spills.

Methods for cleaning up

Clear spills immediately. For small spills, neutralize with weak acidic material such as vinegar, an inert material to absorb, or wash product to a chemical sewer. Place contaminated materials into containers and store in a safe place to await proper disposal.

7. HANDLING AND STORAGE**Precautions for safe handling****Advice on safe handling**

Keep container closed when not in use

Keep away from open flames, hot surfaces and sources of ignition.

Avoid contact with eyes, skin and clothing

Wear chemical splash goggles, gloves, and protective clothing when handling.

Wash thoroughly after handling

Do not breathe mist or spray.

Use with adequate ventilation and employ respiratory protection where mist or spray may be generated.

Do not take internally

FOR INDUSTRIAL USE ONLY.

Conditions for safe storage, including any incompatibilities**Technical measures and storage conditions**

Keep container tightly closed when not in use.

Store in a cool, dry place away from direct heat.

Incompatible products

Strong acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure Guidelines**

Component	weight-%	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium Hydroxide 1310-73-2	8%	2 mg/m ³ Ceiling	2 mg/m ³ TWA	10 mg/m ³ IDLH

Appropriate engineering controls**Engineering controls**

Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details. If there are no applicable or established exposure limit requirements or guidelines, general ventilation should be sufficient.

Individual protection measures, such as personal protective equipment**Eye/face Protection**

Wear chemical splash goggles and face shield (when eye and face contact is possible due to splashing or spraying of material).

Hand Protection

Appropriate chemical resistant gloves should be worn.

Skin and body protection

Standard work clothing and work shoes.

Respiratory protection

If exposures exceed the PEL or TLV, use NIOSH/MSHA approved respirator in accordance with OSHA Respiratory Protection Requirements under 29 CFR 1910.134. If there are no applicable or established exposure limit requirements or guidelines, general ventilation should be sufficient.

Other personal protection data

Eyewash fountains and safety showers must be easily accessible.

Hygiene measures

Take off contaminated clothing and wash before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state	liquid
Color	amber
Appearance	clear to slightly hazy
Odor	no appreciable odor
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks / Method</u>
pH	~ 14	No information available

Melting / freezing point	< -32.2 °C / < -26 °F	No information available
Boiling point / boiling range	116 °C / 241 °F	No information available
Flash point	Not applicable	No information available
Evaporation rate	No information available	No information available
Flammability (solid, gas)	Not applicable	No information available
Flammability Limit in Air		
Upper flammability limit	Not applicable	No information available
Lower flammability limit	Not applicable	No information available
Vapor pressure	No information available	No information available
Vapor density	No information available	No information available
Specific gravity	1.4 - 1.6	No information available
Solubility (water)	Complete	No information available
Solubility in other solvents	No information available	No information available
Partition coefficient: n-octanol/water	No information available	No information available
Autoignition temperature	Not applicable	No information available
Decomposition temperature	No information available	No information available
Kinematic viscosity	No information available	No information available
Dynamic viscosity	200 - 400 cps @ 25 °C	No information available

Other information

Density	11.6 - 13.3 lb/gal - @ 25 °C
Bulk Density	No information available
Explosive properties	No information available.
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
Volatile organic compounds (VOCs) content	No information available
Percent Volatile, wt. %	No information available

10. STABILITY AND REACTIVITY

Reactivity**Reactivity**

No data available.

Chemical stability**Chemical stability**

Stable under normal conditions of handling, use and transportation.

Possibility of hazardous reactions**Possibility of hazardous reactions**

None under normal processing.

Hazardous polymerization

Not anticipated under normal or recommended handling and storage conditions.

Conditions to avoid**Conditions to avoid**

None known

Incompatible materials**Materials to avoid**

Strong acids.

Hazardous decomposition products**Hazardous decomposition products**

Thermal decomposition may release toxic and/or hazardous gases.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Eye contact**

Direct contact may cause severe irritation, pain and burns, possibly severe. May result in permanent blindness. The degree of injury depends on the concentration and duration of contact. The full extent of the injury may not be immediately apparent.

Skin contact

Corrosive to skin. Direct contact may cause severe irritation, pain and possibly burns.

Ingestion

Causes burns of the mouth, throat and stomach. Will cause burns of mucous membranes of gastrointestinal tract, with nausea, vomiting and diarrhea.

Inhalation

Inhalation of mist or spray may irritate respiratory tract and may cause burns and difficulty breathing.

Acute toxicity - Product Information**Oral LD50** No information available**Dermal LD50** No information available**Inhalation LC50** No information available**Acute toxicity - Component Information**

Component	weight-%	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Hydroxide 1310-73-2	8%	--	= 1350 mg/kg (Rabbit)	--

Information on toxicological effects**Symptoms**

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Skin corrosion/irritation**

Causes burns

Serious eye damage/eye irritation

Risk of serious damage to eyes

Sensitization

No information available

Germ cell mutagenicity

No information available

Carcinogenicity

This product does not contain any components in concentrations greater than or equal to 0.1% that are listed as known or suspected carcinogens by NTP, IARC, ACGIH, or OSHA.

Reproductive toxicity

No information available

Specific target organ toxicity - Single exposure

No information available.

Specific target organ toxicity - Repeated exposure

No information available

Aspiration hazard

No information available.

Numerical measures of toxicity - Product Information

- 32% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (dermal) 11475 mg/kg

Other information

Conclusions are drawn from sources other than direct testing.

12. ECOLOGICAL INFORMATION**Ecotoxicity****Acute aquatic toxicity - Product Information**

Fish	LC50 (96h, static, fresh water) = 11.1 mg/L (<i>Gambusia affinis</i> / Western Mosquitofish) ¹ NR-ZERO (9 days, static, fresh water) = 5.0 - 40.0 mg/L (<i>Oncorhynchus tshawytscha</i> / Chinook Salmon) ²
Crustacea	NR-ZERO (1 - 4 days, static, fresh water) = 5.0 - 40.0 mg/L (<i>Daphnia magna</i> / Water Flea) ²
Algae/aquatic plants	No information available

Acute aquatic toxicity - Component Information

Component	weight-%	Algae/aquatic plants	Fish	Toxicity to daphnia and other aquatic invertebrates
Sodium Hydroxide 1310-73-2	8%	--	LC50 (96 h static) = 45.4 mg/L (Oncorhynchus mykiss)	--

Persistence and degradability**Persistence and degradability**

No information available

Bioaccumulative potential**Bioaccumulative potential**

No information available.

Mobility**Mobility**

No information available

Results of PBT and vPvB assessment**PBT and vPvB assessment**

No information available

Other adverse effects**Other information**

LC50 = Lethal concentration to 50% of test organisms

NR-ZERO = 0% mortality or 100% survival of organisms

¹ Author(s): Wallen,I.E., W.C. Greer, and R. Lasater, Publication Year: 1957, Title: Toxicity to Gambusia affinis of Certain Pure Chemicals in Turbid Waters, Source: Sewage Ind. Wastes29(6): 695-711

² Author(s): Peterson,S.A., W.D. Sanville, F.S. Stay, and C.F. Powers, Publication Year: 1974, Title: Nutrient Inactivation as a Lake Restoration Procedure. Laboratory Investigations, Source: EPA-660/3-74-032, U.S.EPA, Corvallis, OR:118 p.
See ECOTOX: Ecotoxicological Database at <http://www.epa.gov/ecotox> and search CAS# 1302-42-7 and CAS# 11138-49-1.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal of wastes**

Disposal should be made in accordance with federal, state and local regulations.

Contaminated packaging

Since empty containers retain product residue, follow label warnings even after container is emptied.

RCRA**Is the unused product a RCRA hazardous waste if discarded? (Yes/No)**

Yes

If yes, the EPA Hazardous Waste Code is:

D002 (corrosivity)

14. TRANSPORT INFORMATION**DOT**

Regulated

DOT UN/NA Number

UN1819

Proper shipping name Sodium Aluminate Solution
Hazard class 8
Packing group II
ERG Number 154

ICAO/IATA Regulated

UN number UN1819
Proper shipping name Sodium Aluminate Solution
Hazard class 8
Packing group II
ERG Code 8L

IMDG Regulated

UN number UN1819
Proper shipping name Sodium Aluminate Solution
Hazard class 8
Packing group II
EmS F-A; S-B

Harmonized Tariff Number 2841.90

15. REGULATORY INFORMATION

International Inventories

TSCA (United States)

All ingredients are on the inventory or exempt from listing

Australia (AICS)

All ingredients are on the inventory or exempt from listing

Canada (DSL)

All ingredients are on the inventory or exempt from listing

Canada (NDSL)

None of the ingredients are on the inventory.

China (IECSC)

All ingredients are on the inventory or exempt from listing

EINECS (European Inventory of Existing Chemical Substances)

All ingredients are on the inventory or exempt from listing

ELINCS (European List of Notified Chemical Substances)

None of the ingredients are on the inventory.

ENCS (Japan)

All ingredients are on the inventory or exempt from listing

South Korea (KECL)

All ingredients are on the inventory or exempt from listing

Philippines (PICCS)

All ingredients are on the inventory or exempt from listing

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
AICS - Australian Inventory of Chemical Substances
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
IECSC - China Inventory of Existing Chemical Substances
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

U.S. Federal Regulations

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Component	CERCLA/SARA Hazardous Substance RQ	CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs	Calculated Product RQ
Sodium Hydroxide 1310-73-2	1000 lb final RQ; 454 kg final RQ	--	--

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Priority Pollutants	CWA - Toxic Pollutants
Sodium Hydroxide 1310-73-2	Present	1000 lb RQ	--	--

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic health hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive hazard	No

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Sodium Hydroxide 1310-73-2	
Massachusetts Right to Know Law	Present
Minnesota Hazardous Substance List	Present
New Jersey Right to Know List	sn 1706
Pennsylvania Right to Know List	Environmental hazard

16. OTHER INFORMATION

NFPA Rating Health - 3 Flammability - 0 Instability - 0 Special Hazard -

HMIS Rating Health - 3 Flammability - 0 Physical hazard - 0 Personal protection - X

Product code 3213M

Revision date 2015-03-12

Revision number 1

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release 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 any other materials or in any process, unless specified in the text.

End of Safety Data Sheet