

# CS-144

SDS Number: 0144

Revision Date: 3/10/2021

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## 1 PRODUCT AND COMPANY IDENTIFICATION

### Manufacturer

Alliance Group Inc. 262-251-4977  
N114 W18621 Clinton Drive  
Germantown, WI 53022

Phone: 800-255-3924

Emergency: CHEMTEL

Product Identifier: CS-144  
Common Name: Sodium Hydroxide  
SDS Number: 0144  
Revision Date: 3/10/2021  
Product Use: Water Treatment Compound

## 2 HAZARDS IDENTIFICATION

### Classification of the Substance or Mixture

#### GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Health, Skin corrosion/irritation, 1  
Health, Serious Eye Damage/Eye Irritation, 1  
Environmental, Hazards to the aquatic environment - Acute, 3

### GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



#### GHS Hazard Statements:

H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage  
H402 - Harmful to aquatic life

#### GHS Precautionary Statements:

P234 - Keep only in original container.  
P264 - Wash skin thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P315 - Get immediate medical advice/attention.  
P337 - If eye irritation persists: Get medical advice / attention  
P353 - Rinse skin with water/shower.  
P363 - Wash contaminated clothing before reuse.  
P501 - Dispose of contents/container to an approved waste disposal plant.

### Hazards not Otherwise Classified (HNOC) or not Covered by GHS

Route of Entry: Eyes; Inhalation; Ingestion; Skin.

Target Organs: Respiratory system; Eyes; Skin.

Inhalation: Can cause severe irritation and inflammation of the respiratory tract.



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**Skin Contact:** May cause irritation, tearing and redness.

**Eye Contact:** May cause irritation. May cause permanent eye damage.

**Ingestion:** Aspiration hazard: Harmful or fatal if swallowed.

HMIS III: Health = 2(Chronic), Fire = 0, Physical Hazard = 0

HMIS	
HEALTH	<input checked="" type="checkbox"/> 2
FLAMMABILITY	<input type="checkbox"/> 0
PHYSICAL HAZARD	<input type="checkbox"/> 0
PERSONAL PROTECTION	<input type="checkbox"/>

**3 COMPOSITION/INFORMATION OF INGREDIENTS**

Substance/Mixture: Mixture

Chemical Ingredients:		
CAS#	%	Chemical Name:
7632-00-0	<5%	Sodium nitrite
7439-98-7	<10%	Molybdenum
1330-43-4	<10%	Borates, tetra, sodium salts (anhydrous)
95-14-7	<5%	1H-Benzotriazole
1310-73-2	<10%	Sodium hydroxide

**4 FIRST AID MEASURES**

**Inhalation:** If symptoms develop, move victim to fresh air. Give oxygen or artificial respiration if needed. GET IMMEDIATE MEDICAL ATTENTION.

**Skin Contact:** Promptly flush skin with water for 15 minutes. Remove contaminated clothing immediately. Get immediate medical attention. Do not reuse clothing and shoes until cleaned. Discard leather articles such as shoes and belt. Do not apply oils and ointments unless ordered by a physician.

**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Get immediate medical attention.

**Ingestion:** Drink large quantities of water. Do NOT induce vomiting. Seek immediate medical attention. If unconscious, take to a hospital or physician. Never induce vomiting or give anything by mouth to an unconscious victim. For spontaneous vomiting, keep head below hips.

**5 FIRE FIGHTING MEASURES**

**Flammability:** Not flammable or combustible.

**Flash Point:** No data available.

**Flash Point Method:** No data available.

**Burning Rate:** No data available.

**Autoignition Temp:** No data available.

**LEL:** No data available.



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**UEL:** No data available.

### Fire Fighting Methods

Evacuate area of unprotected personnel. Wear protective clothing including NIOSH Approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire exposed containers and disperse vapors.

### Unusual Fire or Explosion Hazards:

This material in contact with water or acids may generate sufficient heat to ignite nearby combustible materials. Contact with aluminum, tin, or zinc will result in the generation of heat and release of hydrogen gas. Run-off from fire control may cause pollution. Keep fire-exposed containers cool with water spray to prevent rupture due to excessive heat. High pressure water hose may spread product and produce irritating fumes and toxic gases (including carbon monoxide, carbon dioxide, and sodium oxides). Products of combustion are irritating to the respiratory tract and may cause breathing difficulty. Symptoms may be delayed several hours or longer depending upon extent of exposure.

### Extinguishing Media

**Suitable:** Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

**Unsuitable fire extinguisher:** No data available. Do not use direct water stream

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## ACCIDENTAL RELEASE MEASURES

### Personal Precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

### Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let products enter drains. Discharge into the environment must be avoided.

### Spill

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

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## HANDLING AND STORAGE

### Handling Precautions:

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors or mist. Wash thoroughly after handling. Do not puncture or drop containers. Do not expose containers to open flame, excessive heat, or direct sunlight.

### Storage Requirements:

Store in cool/dry area. Keep away from sunlight, heat, sparks, and flames. Keep away from incompatible materials. Keep container tightly closed. Do not store in unlabeled or mislabeled containers. Do not freeze.

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## EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering Controls:

Provide local exhaust ventilation. Maintain adequate ventilation. Do not use in confined spaces.

### Personal Protective Equipment:

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Respiratory

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

#### Eyes and Face

Wear chemical safety goggles while handling this product. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid or airborne material.



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Skin

Prevent contact with this product. Wear gloves and protective clothing depending on conditions of use.

Protective gloves: gauntlet-type, neoprene, nitrile.

Component	OSHA PEL	ACGIH TWA/ TLV
Sodium Tetraborate	10 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
Sodium Molybdate	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Sodium Nitrite	No data available.	No data available.
Sodium Hydroxide	No data available.	2 mg/m <sup>3</sup>
Benzotriazole	15 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>

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## PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear / yellow	<b>Odor:</b>	Odorless
<b>Physical State:</b>	Liquid	<b>Molecular Formula:</b>	No data available.
<b>Odor Threshold:</b>	No data available.	<b>Solubility:</b>	Complete
<b>Particle Size:</b>	No data available.	<b>Softening Point:</b>	No data available.
<b>Spec Grav./Density:</b>	1.163	<b>Percent Volatile:</b>	None
<b>Viscosity:</b>	No data available.	<b>Heat Value:</b>	No data available.
<b>Saturated Vapor Concentration:</b>	No data available.	<b>Freezing/Melting Pt.:</b>	32°F
<b>Boiling Point:</b>	212-662° F	<b>Flash Point:</b>	No data available.
<b>Flammability:</b>	No data available.	<b>Octanol:</b>	No data available.
<b>Partition Coefficient:</b>	No data available.	<b>Vapor Density:</b>	Heavier than air
<b>Vapor Pressure:</b>	No data available.	<b>VOC:</b>	None
<b>pH:</b>	10.5-11.5	<b>Bulk Density:</b>	No data available.
<b>Evap. Rate:</b>	Slower than butyl acetate	<b>Auto-Ignition Temp:</b>	No data available.
<b>Molecular weight:</b>	No data available.	<b>UFL/LFL:</b>	No data available.
<b>Decomp Temp:</b>	No data available.		

Lower Explosion Limits: No data available.

Upper Explosion Limits: No data available.

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## STABILITY AND REACTIVITY

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	Product is stable under normal conditions.
<b>Conditions to Avoid:</b>	Avoid contact with heat, sparks, electric arcs, other hot surfaces, and open flames.
<b>Materials to Avoid:</b>	Strong reducing agents, acids, strong oxidizing agents, organic materials
<b>Hazardous Decomposition:</b>	Thermal decomposition may release: carbon monoxide, carbon dioxide, and oxides of nitrogen.
<b>Hazardous Polymerization:</b>	Will not occur under normal conditions.

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## TOXICOLOGICAL INFORMATION

**Toxicity Data:****Eye Effects:** Causes serious eye irritation. May cause: blurred vision, redness, pain and tearing.**Skin Effects:** Causes irritation. Prolonged and repeated exposure to dilute solutions may cause irritation, redness, pain and drying and cracking of the skin.



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- » Sodium Tetraborate Dermal LD50 - Rabbit: >2000 mg/kg
- » Sodium Molybdate Dermal LD50 - No data available
- » Sodium Nitrite Dermal LD50 - No data available
- » Sodium Hydroxide Dermal LD50 - Rabbit: 1350 mg/kg

**Inhalation Effects:** May be harmful if inhaled. Effects may be delayed. Headaches, dizziness, nausea, and cyanosis may result from over-exposure to vapor.

- » Sodium Tetraborate LC50 - No data available
- » Sodium Molybdate LC50 - No data available
- » Sodium Nitrite LC50 - No data available
- » Sodium Hydroxide LC50 - No data available

**Ingestion Effects:** May cause discomfort, nausea, vomiting, diarrhea if swallowed.

- » Sodium Tetraborate Oral LD50 - Rat: 3200 mg/kg
- » Sodium Molybdate Oral LD50 - No data available
- » Sodium Nitrite Oral LD50 - Rat: 157.9 mg/kg
- » Sodium Hydroxide Oral LD50 - Mouse: 40 mg/kg

**Carcinogenicity:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP, or OSHA.

**Mutagenicity:** No data available.

**Teratogenicity:** No data available.

**Reproductive Toxicity:** Sodium Tetraborate = Suspected of damaging fertility

**Acute Toxicity Estimate (ATE):**

**Inhalation Vapor:** No data available.

**Inhalation Dust/Mist:** No data available.

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### ECOLOGICAL INFORMATION

**Biodegradability:** No data available

#### Ecotoxicity

**Toxicity to fish:**

- » Sodium Nitrite LC50 - *Oncorhynchus mykiss* (rainbow trout): 0.94 - 1.92 mg/l - 96.0 h (Flow thru test)  
\* Mortality NOEC - *Oncorhynchus mykiss* (rainbow trout): 0.54 mg/l - 96.0 h
- » Sodium Hydroxide LC50 - *Gambusia affinis* (Mosquito fish): 125 mg/l - 96 h.  
LC50 - *Oncorhynchus mykiss* (rainbow trout): 45.4 mg/l - 96 h
- » Sodium Tetraborate LC50 - Other fish: 74 mg/L - 96h.

**Toxicity to aquatic invertebrates:**

- » Sodium Hydroxide EC50 - *Daphnia magna* (Water flea): 40.38 mg/l - 48 h.

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### DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, and federal regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied. DO NOT pressurize, cut, weld, solder, drill, grind, or expose empty containers to heat, flame, sparks or other sources of ignition.

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### TRANSPORT INFORMATION

UN3266, Corrosive liquid, basic, inorganic, n.o.s., 8, PGII, (Sodium Hydroxide, Sodium Nitrite)



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DOT Proper Shipping Name: Corrosive liquid, basic, inorganic, nos

DOT Technical Name: Sodium Hydroxide, Sodium Nitrite

DOT Hazard Class: 8

DOT UN/NA Number: UN3266

Packing Group: II

Resp. Guide Page:60

Reportable Quantity (RQ): N/A



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### REGULATORY INFORMATION

This product does not contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

#### Regulatory CODE Descriptions

RQ = Reportable Quantity

CERCLA = Superfund clean up substance

CSWHS = Clean Water Act Hazardous substances

MASS = MA Massachusetts Hazardous Substances List

PA = PA Right-To-Know List of Hazardous Substances

SARA313 = SARA 313 Title III Toxic Chemicals

TSCA = Toxic Substances Control Act

OSHAWAC = OSHA workplace Air Contaminants

TXAIR = TX Air Contaminants with Health Effects Screening Level

#### FEDERAL REGULATIONS

TSCA Inventory Status: All components of this product are listed as "Active" on the Toxic Substances Control Act (TSCA) 8 (b) Inventory.

CERCLA / SARA Emergency Reporting: A spill or release of this material may trigger the emergency release reporting requirements under CERCLA (40 CFR Part 300) and/or SARA Title III (40 CFR Part 355). State or local reporting requirements may differ from federal requirements.

» **Sodium Hydroxide CERCLA reporting amount - 1000 lbs.**

» **Sodium Nitrite CERCLA reporting amount - 100 lbs.**

Clean Water Act (CWA): The following chemicals are listed under Section 311 as hazardous substances requiring the submission of a National Pollutant Discharge Elimination System (NPDES) permit application to EPA. »

**Sodium Hydroxide**

#### STATE REGULATIONS

**California-** The following components are listed under Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer.

**Massachusetts - RTK Substances:** The following components are listed: Sodium Hydroxide (CAS #1310-73-2)

**New Jersey - RTK Substances:** The following components are listed: Sodium Hydroxide (CAS #1310-73-2)

**Pennsylvania - RTK Substances:** The following components are listed: Sodium Hydroxide (CAS #1310-73-2)



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## OTHER INFORMATION

Prepared By: P May

Reason For Revision: Updated GHS & Regulatory Information

**Disclaimer:**

This information is given in good faith and based on our current knowledge of the product. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

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