

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Sodium Hydroxide Flakes ACS Grade  
**Synonyms:** SODIUM HYDROXIDE, Caustic soda, Sodium hydrate, Aetznatron, Soda lye  
**CAS Number:** 1310-73-2  
**Grade/Purity:** ACS  
**Product Type:** Bases  
**Product Use:** Industrial, Manufacturing or Laboratory use  
**Manufacturer/Supplier:** Alliance Chemical, 204 South Edmond St, Taylor, Texas 76574  
**Information:** 512-365-6838 | [www.alliancechemical.com](http://www.alliancechemical.com)  
**Emergency:** CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

### 2. HAZARDS IDENTIFICATION

**Signal Word:** Danger

**GHS Pictograms:**



**Hazard Statements:**

H314	Causes severe skin burns and eye damage [Danger Skin corrosion/irritation]
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**Precautionary Statements:**

P260,	P264, P280, P301+P330+P331, P302+P361+P354, P304+P340, P305+P354+P338, P316, P321, P363, P405, and P501
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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS #	FORMULA	MOLECULAR WEIGHT	CONCENTRATION
Sodium Hydroxide	1310-73-2	HNaO	39.997 g/mol	99.0%

### 4. FIRST-AID MEASURES

<b>Eyes</b>	EYES: flush with water at once for at least 15 min.
<b>Skin</b>	Remove contaminated clothes. Rinse skin with plenty of water or shower for at least 15 minutes. Refer immediately for medical attention.
<b>Inhalation</b>	Breathing: RESPIRATORY SUPPORT - If a person breathes large amounts of this chemical, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Keep the affected person warm and at rest. Get medical attention as soon as possible.
<b>Ingestion</b>	Rinse mouth. Do NOT induce vomiting. If within a few minutes after ingestion, one small glass of water may be given to drink. Refer immediately for medical attention.

### 5. FIRE-FIGHTING MEASURES

<b>Suitable Media</b>	Dry chemical, CO2, water spray. Use water spray to cool containers.
<b>Unsuitable Media</b>	Do not use a solid water stream as it may scatter and spread fire.
<b>Protective Equipment</b>	Wear self-contained breathing apparatus and full protective clothing.
<b>Combustion Products</b>	May include carbon oxides and other toxic fumes. See Section 10.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas.
<b>Environmental</b>	Prevent leakage or spillage from entering drains, sewers, or waterways.
<b>Containment &amp; Cleanup</b>	Absorb with inert material. Collect in appropriate waste container. Dispose per applicable regulations.

## 7. HANDLING AND STORAGE

<b>Safe Handling</b>	Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use.
<b>Safe Storage</b>	Store in a cool, dry, well-ventilated area. Use corrosion-resistant containers. Keep away from: SODIUM HYDROXIDE SOLUTION refers to an aqueous solution of sodium hydroxide. Strongly basic. Reacts . Keep containers tightly closed.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.

**Occupational Exposure Limits:**

AGENCY	EXPOSURE LIMIT
OSHA PEL	2.0 [mg/m <sup>3</sup> ]
NIOSH REL	2 mg/m <sup>3</sup>
IDLH	10.0 [mg/m <sup>3</sup> ]

<b>Eyes</b>	Wear chemical safety goggles or face shield.
<b>Skin</b>	Wear chemical-resistant gloves and protective clothing.
<b>Inhalation</b>	Use NIOSH-approved respirator if exposure limits are exceeded or irritation occurs.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	White hygroscopic flakes
<b>Odor</b>	... Odorless ...
<b>pH</b>	Strongly alkaline (1 % solution)
<b>Melting Point</b>	318°C
<b>Boiling Point</b>	1388°C
<b>Flash Point</b>	Not applicable
<b>Vapor Pressure</b>	0 mmHg (approx) (NIOSH, 2024)
<b>Specific Gravity</b>	2.13
<b>Solubility</b>	Highly soluble in water, moderate solubility in alcohols, forms alkaline solutions
<b>Molecular Formula</b>	HNaO
<b>Molecular Weight</b>	39.997 g/mol

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under recommended storage conditions.
<b>Hazardous Reactions</b>	None under normal processing conditions.
<b>Conditions to Avoid</b>	Heat, sparks, open flame, and incompatible materials.
<b>Incompatible Materials</b>	SODIUM HYDROXIDE SOLUTION refers to an aqueous solution of sodium hydroxide. Strongly basic. Reacts rapidly and exothermically with organic and inorganic acids, with organic and inorganic acid anhydri
<b>Decomposition Products</b>	May produce carbon oxides and other toxic fumes when heated to decomposition.

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity:** See Section 2 for GHS hazard classification.

<b>IARC</b>	Not listed as carcinogen.
<b>NTP</b>	Not listed as carcinogen.
<b>OSHA</b>	Not listed as carcinogen.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Fish LC50: LC50; Species: Carassius auratus (Goldfish); Conditions: freshwater, static; Concentration: 160000 ug/L for 24 hr; Daphnia EC50: EC50; Species: Ceriodaphnia dubia (Water Flea) age <24 hr neonate; Conditions: freshwater, static, 23 °C; Concentration: 40380 ug/L for 48 hr (95% confidence interval: 34590-47130 ug/L); Effect: intoxication, immobilization /100% purity/ [PubChem]
<b>Persistence</b>	Not Available
<b>Bioaccumulation</b>	Not Available
<b>Mobility in Soil</b>	Not Available

## 13. DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

## 14. TRANSPORT INFORMATION

<b>US DOT</b>	UN1823, SODIUM HYDROXIDE SOLID MIXTURE, 8, PG II
<b>IMDG</b>	UN1823, SODIUM HYDROXIDE, SOLID, 8, PG II, Tunnel (E)
<b>IATA/ICAO</b>	UN1823, SODIUM HYDROXIDE SOLID MIXTURE, 8, PG II Passenger: 15 KG (PI 859); Cargo only: 30 KG (PI 863)
<b>Marine Pollutant</b>	No

## 15. REGULATORY INFORMATION

<b>TSCA Inventory</b>	All ingredients are listed on the TSCA Active inventory.
<b>California Prop 65</b>	Refer to California Proposition 65 list for current status.
<b>SARA 311/312</b>	See Section 2 for hazard classifications.
<b>SARA 313</b>	Refer to EPA Toxic Release Inventory for current listing status.

## 16. OTHER INFORMATION

**Revision Date:** 02/10/2026

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