

PRODUCT IDENTIFICATION

**Product Name:** Sodium Hydroxide Flakes**CAS Number:** 1310-73-2**Molecular Formula:** HNaO**Molecular Weight:** 39.997 g/mol**Grade:** Technical Grade**Purity / Concentration:** 100%**Synonyms:** Caustic Soda, Soda Lye

PRODUCT OVERVIEW

Alliance Chemical offers high-purity Sodium Hydroxide Flakes, a versatile Technical Grade reagent essential for diverse industrial processes. With a high assay of 97% and strictly controlled impurity levels—such as iron at 0.9 ppm and chloride at 17 ppm—this product ensures consistent performance in demanding chemical applications.

Grade Significance: Technical Grade indicates that this product is manufactured to meet industrial standards where performance and cost-effectiveness are prioritized over pharmaceutical or food-grade purity levels.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Titration)	%	97	96.5	97.5	Titration
Iron	ppm	0.9	0	3	ICP
Chloride (Cl ⁻)	ppm	17	0	100.0	Ion chromatography
Sulfate (SO ₄ ²⁻)	ppm	16	0	40	Ion chromatography
Carbonate	%	0.03	0	0.1	Titration

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	White crystalline flakes	Form	Solid
Boiling Point	greater than 266 °F at 760 mmHg (USCG, 1999)	Melting / Freezing Point	604 °F (USCG, 1999)
Specific Gravity	2.13	Solubility	Highly soluble in water, moderate alcohol solubility
Molecular Formula	HNaO	Molecular Weight	39.997 g/mol

APPLICATIONS

1. **Water Treatment** — Used as a powerful pH adjuster to neutralize acidic wastewater and maintain optimal balance in municipal and industrial treatment systems.
2. **Pulp and Paper** — Serves as a critical chemical in the pulping process to dissolve lignin and effectively separate fibers from wood chips.
3. **Chemical Manufacturing** — Acts as a primary reactant in the synthesis of various organic and inorganic compounds, including soaps, detergents, and surfactants.
4. **Metal Processing** — Utilized in industrial cleaning and etching processes to remove oxides and prepare metal surfaces for finishing or plating.
5. **Laboratory Research** — Functions as a standard reagent for titration and analytical testing where precise alkalinity control is required.

STORAGE & HANDLING

Sodium Hydroxide is highly hygroscopic and corrosive, meaning it readily absorbs moisture from the air and can damage metal containers. Proper storage in a cool, dry, and well-ventilated area is vital to prevent clumping and minimize the risk of severe skin burns or corrosive damage to storage facilities.

- Store in a cool, dry place away from incompatible materials such as acids.
- Use appropriate personal protective equipment (PPE) including gloves and goggles when handling.
- Ensure proper ventilation in storage areas to avoid accumulation of dust.
- Keep containers tightly closed to prevent moisture absorption.

AVAILABLE PACKAGING

- 2 lbs.
- 4 Lbs.
- 55 Lbs.

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



Hazard Statements:

- H290: May be corrosive to metals
- H314: Causes severe skin burns and eye damage

Emergency Contact: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

For complete safety information, refer to the Safety Data Sheet (SDS) for this product.

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