

PRODUCT IDENTIFICATION

**Product Name:** Sodium Hydroxide 25% Technical Grade**CAS Number:** 1310-73-2**Molecular Formula:** HNaO**Molecular Weight:** 39.997 g/mol**Grade:** Technical Grade**Purity / Concentration:** 25%**Synonyms:** Caustic Soda, Lye

PRODUCT OVERVIEW

Alliance Chemical offers high-quality Sodium Hydroxide 25% Technical Grade, a clear, pale liquid essential for industrial pH control and chemical manufacturing. This solution features a precise 25% assay with strictly controlled impurities, including iron levels at just 1 ppm, ensuring consistent performance for your critical processes.

Grade Significance: Technical Grade indicates that the product is manufactured for industrial and commercial use where efficiency and cost-effectiveness are prioritized over the stringent purity requirements of food or pharmaceutical grades.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Titration)	%	25	24.5	25.5	Titration
Iron	ppm	1	0	2	ICP
Chloride (Cl ⁻)	ppm	9	0	50	Ion chromatography
Sulfate (SO ₄ ²⁻)	ppm	8	0	20	Ion chromatography
Carbonate	%	0.03	0	0.1	Titration

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, pale liquid	Odor	Odorless
Form	Liquid	Boiling Point	Not characterized for the 25% solution
Melting / Freezing Point	Not characterized for the 25% solution	Specific Gravity	1.27
Solubility	High water solubility, miscible with polar solvents	Molecular Formula	HNaO
Molecular Weight	39.997 g/mol	Viscosity (25°C)	1.0 cP
Refractive Index (20°C)	1.333	Density (25°C)	1.2 g/mL

APPLICATIONS

- Water Treatment** — Used to neutralize acidic water and maintain optimal pH levels in municipal and industrial treatment processes.
- Soap and Detergent Manufacturing** — Serves as a key reactant in the production of various cleaning agents and surfactants.
- Chemical Synthesis** — Utilized in the saponification process and as a versatile reagent for various chemical transformations.
- Analytical Chemistry** — Commonly used as a standard reagent for titration and other analytical laboratory applications.

STORAGE & HANDLING

Proper storage is critical because Sodium Hydroxide 25% is highly corrosive to metals and can cause severe skin burns or eye damage. Maintaining the product in compatible, sealed containers prevents hazardous spills and protects the integrity of the solution from environmental contamination.

- Store in a cool, dry place away from incompatible materials such as acids.
- Use containers made of HDPE or glass to prevent reactions.
- Ensure proper ventilation when handling to avoid inhalation of vapors.
- Wear appropriate personal protective equipment (PPE) including gloves and goggles.
- Avoid exposure to moisture to maintain product integrity.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 15 Gallon
- 55 Gallon
- 275 Gallon
- 330 Gallon

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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