TECHNICAL DATA SHEET

Sodium Hydroxide 5% ACS Grade

Revised: 07/22/2026

PRODUCT IDENTIFICATION

Product Name: Sodium Hydroxide 5% ACS Grade
CAS Number: 1310-73-2
Molecular Formula: HNaO
Molecular Weight: 39.997 g/mol
Grade: ACS Grade
Purity / Concentration: 5%
Synonyms: Not Available

PRODUCT OVERVIEW

Alliance Chemical offers Sodium Hydroxide 5% in a high-purity ACS grade formulation designed for precision laboratory and industrial applications. This clear, colorless liquid is standardized for consistent concentration, ensuring reliable performance in sensitive chemical processes.

Grade Significance: ACS Grade signifies that the product meets the stringent purity standards set by the American Chemical Society, making it suitable for rigorous laboratory and analytical work where impurity levels must be strictly controlled.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

Certificate of Analysis data not available for this product.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	**Form**	Liquid
Boiling Point	1390°C (pure)	**Melting / Freezing Point**	318°C (pure)
Specific Gravity	1.054	**Solubility**	Fully soluble in water
Molecular Formula	HNaO	**Molecular Weight**	39.997 g/mol

APPLICATIONS

1. **Analytical Chemistry** — Used as a standardized titrant for acid-base neutralizations in laboratory research. The ACS grade ensures minimal interference from impurities during precise chemical analysis.
2. **Water Treatment** — Applied for pH adjustment and alkalinity control in water purification systems. It effectively neutralizes acidic components to maintain optimal water quality standards.
3. **Pharmaceutical Manufacturing** — Utilized as a reagent for chemical synthesis and pH regulation during the production of active pharmaceutical ingredients. High-purity standards are critical for maintaining batch consistency.
4. **Textile Processing** — Employed in the mercerization of cotton fibers to improve dye affinity and tensile strength. The 5% concentration allows for controlled chemical treatment of fabrics.
5. **Education and Research** — Serves as a fundamental reagent for academic experiments and general chemical studies. Its standardized purity level provides a safe and predictable medium for student instruction.

STORAGE & HANDLING

Sodium Hydroxide is highly corrosive and requires storage in a cool, dry, and well-ventilated area to prevent degradation and container failure. Because it causes severe skin burns and eye damage, proper containment is essential to prevent accidental exposure and maintain a safe workspace.

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:

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

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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