

PRODUCT IDENTIFICATION

**Product Name:** Sodium Hydroxide 50% Membrane Grade (Caustic Soda, Lye)**CAS Number:** 1310-73-2**Molecular Formula:** HNaO**Molecular Weight:** 39.997 g/mol**Grade:** Technical Grade**Purity / Concentration:** 50%**Synonyms:** Caustic Soda, Lye

PRODUCT OVERVIEW

Sodium Hydroxide 50% Membrane Grade is a highly concentrated aqueous solution of sodium hydroxide (NaOH), known for its strong alkaline properties. This chemical is widely utilized in various industrial applications due to its effectiveness in pH adjustment and as a reagent in chemical synthesis.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Titration)	%	50	49.5	50.5	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	Clear, caustic liquid	Odor	Odorless
Form	Liquid solution	Boiling Point	Not characterized for the 50% solution
Melting / Freezing Point	Not characterized for the 50% solution	Specific Gravity	1.53
Solubility	Complete water solubility, moderate organic solvent	Molecular Formula	HNaO
Molecular Weight	39.997 g/mol	Vapor Pressure (20°C)	Negligible
Viscosity (25°C)	1.0 cP	Refractive Index (20°C)	1.333
Density (25°C)	1.20 g/mL		

APPLICATIONS

- Water Treatment** — Used to adjust the pH of water in various treatment processes.
- Chemical Manufacturing** — Acts as a strong base in various chemical reactions and syntheses.
- Personal Care** — Utilized in the saponification process to produce soap.
- Food Industry** — Used in food processing applications for pH control and as a cleaning agent.
- Textile Industry** — Employed in the treatment and processing of textiles.

STORAGE & HANDLING

- Store in a cool, dry place away from incompatible materials.
- Use corrosion-resistant containers (e.g., HDPE, stainless steel).
- Avoid contact with acids and organic materials.
- Ensure proper personal protective equipment (PPE) is worn during handling.
- Provide adequate ventilation in storage areas.

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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