

Caustic Soda Lye

CAS 1310-73-2 · NaOH · 48% membrane grade

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1. Product identity

Product name	Caustic Soda Lye
Synonyms	sodium hydroxide lye, NaOH lye, lye 48%, liquid caustic
C.A.S. number	1310-73-2
Molecular formula	NaOH (aqueous solution)
Molecular weight	40.00 g/mol (NaOH solute; not the molar mass of the 48% solution)
Grade supplied against	48% membrane grade
Appearance	Clear, colourless, odourless liquid; commercial lye may appear slightly turbid or off-white
Product group	Alkalis & Bases
HSN code	2815 12 00
Country of origin	As stated on the producer's documents for the lot supplied; confirmed at offer stage
Packing	Road tanker · 250 kg drum
Storage	Store above the crystallisation point (Olin specifies above 16 C / 61 F) in closed, vented tanks of carbon steel, 304/316L stainless steel, or lined steel/HDPE/FRP rated for 50% caustic. Never store or handle in aluminium, zinc, tin, galvanised or brass equipment. Keep in a bunded, caustic-resistant, well-ventilated area segregated from all acids and from food and feedstuffs. Keep containers tightly closed to prevent CO2 absorption and dilution. Provide an eyewash station and safety shower at the point of use. Always add caustic soda solution to water with constant agitation — never add water to the caustic.

2. Analytical specification

S. No.	Test parameter	Specification	Method
1	Description	Clear, colourless, odourless liquid; commercial lye may appear slightly turbid or off-white	Visual
2	Identification	Conforms to the substance supplied	Instrumental or chemical test, per method agreed
3	Assay / grade	48% membrane grade	Titrimetry or instrumental, per method agreed
4	Physical state	Liquid (aqueous solution, 48% w/w NaOH)	Visual
5	Solubility in water	Completely miscible with water in all proportions; dilution is strongly exothermic	Per the test method agreed

S. No.	Test parameter	Specification	Method
6	pH	14 (as supplied, undiluted — Olin SDS); 14 at 0.5% dilution (Braskem SDS). A 1% NaOH solution is approximately pH 13	Potentiometry
7	Relative density	1.4-1.6 at 25 C for 45-50% lye (Aditya Birla SDS); relative density 1.353-1.528 at 20 C across the 30-54% range (Olin SDS)	Densitometry / hydrometry
8	Melting / freezing point	Crystallisation point approx. 12 C for 45-50% lye (Aditya Birla SDS). Exact value is strength-dependent; a precise figure for 48.0% is Not available — confirm against producer data	Capillary / thermal
9	Boiling point	Approx. 140 C (45-50% lye; Aditya Birla and Braskem SDS). Olin states it varies with concentration	Distillation range
10	Flash point	Not flammable (no flash point). Caution: contact with aluminium, zinc, tin or galvanised steel liberates flammable hydrogen gas	Not applicable — the substance is not combustible
11	Additional parameters	To the specification agreed before order	As agreed

3. Transport classification

UN 1824 · Class 8 (Corrosive) · Packing group II

Proper shipping name: SODIUM HYDROXIDE SOLUTION

What this document is. This is a product specification sheet. It states the grade this material is supplied against, its packing and its identity. **It is not a certificate of analysis, it carries no test results, and it certifies no batch.** Tested values for the consignment actually loaded appear on the batch certificate of analysis issued against that batch, which travels with the despatch documents. Identity and physical data are drawn from PubChem, the ECHA CLP inventory and ILO safety cards; the producer's documents for the grade quoted govern. Velora Chemicals Private Limited is a bulk supplier and trader, not a manufacturer.