TECHNICAL DATA SHEET

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Sodium Hydroxide, ≥ 98% (Caustic Soda) — Catalogue No. ASC-8061
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Product Information

Product name	Sodium Hydroxide, ≥ 98% (Caustic Soda)
Catalogue number	ASC-8061
Synonyms	Caustic soda; lye; soda lye
CAS No. / EC No.	1310-73-2 / 215-185-5
Formula	NaOH
Molecular weight	40.00 g/mol
UN number	UN1823, Class 8, PG II
HS code	2815.11
Grade	Laboratory reagent
Pack size	5 kg

Description and Intended Use

Sodium hydroxide is a strong inorganic base supplied as white, hygroscopic pellets or flakes. It dissolves in water with strong heat release, giving strongly alkaline solutions (0.1 M ≈ pH 13). It is used for pH adjustment of culture media and buffers, preparation of standard solutions for titration, alkaline digestion and lysis, equipment cleaning and organic chemistry. For laboratory, analytical and industrial use only. Not for food, drug, cosmetic or household use.

Specifications

Parameter	Specification
Appearance	White pellets or flakes
Assay (NaOH)	≥ 98.0%
Sodium carbonate (Na_2CO_3)	≤ 1.0%
Chloride (Cl)	≤ 0.01%
Sulfate (SO_4)	≤ 0.01%
Iron (Fe)	≤ 0.001%
Heavy metals (as Pb)	≤ 0.002%

Physical Properties

Appearance	White pellets or flakes; hygroscopic
Melting point	318 °C
Boiling point	1,388 °C
Density	2.13 g/cm³ at 20 °C

Solubility	Very soluble in water (about 1,090 g/L at 20 °C; strongly exothermic); soluble in ethanol and methanol
pH	About 13 (0.1 M solution)

Preparing Solutions

- Always add the solid slowly to cold water while stirring. Never add water to the solid.
- Use a heat-resistant vessel and allow the solution to cool before making up to volume.
- Example: 1 M NaOH — dissolve 40.0 g in purified water and make up to 1 L. Standardise by titration when an exact concentration is needed.
- Store solutions in tightly closed polyethylene bottles; concentrated NaOH slowly attacks glass.

Storage and Shelf Life

Storage	Store at 15–25 °C in the original tightly closed plastic container, in a dry place. Store locked up.
Incompatible materials	Acids; aluminium, zinc, tin and their alloys; ammonium salts; halogenated organic compounds.
Shelf life	As stated on the label and lot Certificate of Analysis, when stored unopened as directed.

Safety

Danger: causes severe skin burns and eye damage; may be corrosive to metals. Schedule 6 poison. Dangerous Goods Class 8. Read the Safety Data Sheet before use.

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