



## **IS 376 : 2023 Sodium Hydroxide, Analytical Reagent — Specification**

**Sodium Hydroxide**, commonly known as "caustic soda," is widely utilized in **laboratory analysis** due to its high **purity** and **consistency**. Recognized for its form as **white sticks or pellets**, sodium hydroxide is crucial for sensitive applications where contamination must be minimized.

The Indian Standard **IS 376:2023** prescribes specific requirements for **sodium hydroxide** as an **analytical reagent** to ensure it meets essential quality benchmarks. Key quality attributes defined by the standard include a minimum purity of **99% sodium hydroxide** by mass and stringent limits on impurities such as **carbonates, chlorides, sulphates, nitrates, phosphates, silicates, and heavy metals** like lead and iron. These limits are set to maintain the reagent's integrity in analytical use, where trace contaminants can disrupt test accuracy. To prevent unwanted chemical interactions, the standard also sets limits on additional compounds, including **ammonia, calcium, magnesium, arsenic, and potassium**.

The standard ensures compliance with these quality expectations through **detailed testing procedures** that evaluate each impurity level, including visual, spectrophotometric, and instrumental methods as required. **Packaging** specifications are also included to safeguard the product's quality during transportation and storage, with requirements for **airtight containers** that prevent exposure to moisture and contaminants. Each container must clearly display the **product name, grade, manufacturer details, and batch number** to support traceability.

Through **IS 376:2023**, the Bureau of Indian Standards aims to provide a consistent quality benchmark for sodium hydroxide, meeting the rigorous demands of analytical laboratories and assuring consumers of the **purity** and **reliability** expected in **laboratory-grade** reagents.