

What is Sodium Hydroxide?

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If we speak a more common language, sodium hydroxide is known to people as caustic soda. Most people know its formula from school, as it's used quite often when studying inorganic chemical compounds. This compound consists of sodium cations Na^+ and hydroxide anions OH^- , and so its formula is NaOH .

As mentioned before, you might have seen numerous reactions with this inorganic compound even during chemistry classes at school, as the product is quite simple. In fact, NaOH is one of the simplest hydroxides, which makes it easy to apply it with water and acidic hydrochloric acid to demonstrate the pH scale.

When working with NaOH , it's important to ensure that all the security measures are in place since the compound can lead to severe chemical burns even at room temperature if used improperly. Due to this property, it's widely applied to decompose proteins. It's also known as one of the simplest and most efficient absorbers of carbon dioxide from the air.

The ability to decompose other compounds has led to the use of sodium hydroxide in industries, tightly related to our everyday lives. As you can guess, it's often found in household cleaners, including oven cleaners. The industrial application of NaOH is to be used in the manufacturing of different types of soaps and wood cleaning.

Chemical properties and use in reactions

- Empirical formula: NaOH
- Molar mass (M): 40.0 g/mol
- Density (D): 2.13
- Boiling point (bp): 1390°C
- Melting point (mp): 323°C
- Solubility: 1090 g/l (H_2O , 20°C)

When a protic acid is combined with sodium hydroxide, the result is water and the corresponding salts. For example, when hydrochloric acid is mixed with NaOH , the result is the formation of sodium chloride. This type of acid-base reaction with a strong acid produces heat and is exothermic. Acid-base reactions like this can also be used for titrations, although NaOH is not used as a primary standard due to its hygroscopic nature and tendency to absorb carbon dioxide from the air.

In addition to reacting with protic acids, sodium hydroxide can also react with acidic oxides, such as sulfur dioxide. These types of reactions are often utilized to "scrub" harmful acidic gases

like SO₂ and H₂S, which are produced during the burning of coal, and prevent their release into the atmosphere.

Where to buy high-quality sodium hydroxide?

If you need sodium hydroxide CAS 1310-73-2 for your studies or experiments, you can buy it here <https://chemist.eu/catalog/chemical-reagents/sodium-hydroxide-99-cas-1310-73-2>. As for use, this is one of the best sources in terms of quite important factors, including the following:

Sodium hydroxide price: the cost of the product might vary depending on the supplier, the concentration of the compound, and the amount you are going to buy. The above-mentioned supplier offers an average price of \$11.68 per kilogram, which is quite fair compared to other costs of NaOH 99%.

Legitimacy and certifications: what's more important than price is that you have the possibility to buy sodium hydroxide legally from a CAS-certified supplier that meets all the quality-assurance standards, regarding the distribution of chemicals. This includes signing the end-user declaration necessary after placing an order, which confirms your awareness of hazards and security measures. The CAS number of the sodium hydroxide compound is 1310-73-2.

Shipping and handling: Ensure that the supplier has a safe and secure shipping method for delivering the chemicals to you. Also, see whether it delivers to your region.