



MARLYN

Product Information Sheet

Sodium Hydroxide

Product Description

Sodium hydroxide is a white, solid, inorganic ionic compound that is easily soluble in water. It is also known as caustic soda, and when dissolved in water, caustic lye. Sodium hydroxide is a highly caustic base and alkali that may cause severe chemical burns. Dissolution of solid sodium hydroxide in water is a highly exothermic reaction in which a large amount of heat is liberated, posing a threat to safety through the possibility of splashing. The resulting solution is usually colourless and odourless. As with other alkaline solutions, it feels slippery when it comes in contact with skin due to saponification.

Usage

The main users of sodium hydroxide globally are pulp and paper, alumina and the chemical industries. Sodium hydroxide is commonly used to increase the pH of a mixture, or to neutralise acids. The common applications of sodium hydroxide include:

Chemical Pulping: Sodium hydroxide is used in the pulping of wood for making paper or regenerated fibres. Along with sodium sulphide, sodium hydroxide is a key component of the white liquor solution used to separate lignin from cellulose fibres in the Kraft process. It also plays a key role in the process of bleaching the brown pulp resulting from the pulping process. These stages require a strong alkaline environment with a pH > 10.5.

Water Treatment: Sodium hydroxide is used during water purification to raise the pH of water supplies. Controlled pH reduces the potential of corrosion in articulation systems.

Cement, Mortars and Grouts: Sodium hydroxide is used in some cement mix plasticisers where it helps to homogenise the cement mix, preventing segregation of sand and cement, decreasing the amount of water required in a mix and increasing the workability of the cement product, be it mortar, render or concrete.

Petroleum: It is used as an additive in drilling mud to increase the pH in bentonite mud systems, to increase the mud viscosity, and to neutralise any acidic gas (such as hydrogen sulphide and carbon dioxide) encountered in the geological formation as frilling progresses.



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Other Applications:

- Food preparation, for washing, chemical peeling of fruits and vegetables, poultry scalding and soft drink processing
- Industrial cleaning agent, where it is known as “caustic”.

Packaging

Sodium hydroxide flakes is available in 25 kilogram bags. Sodium hydroxide solution, or caustic lye, is available in 1 500 kilogram IBCs and in bulk.

Health and Safety Information

For Health, Safety, Shipping and Handling information it is recommended to refer to the Material Safety Data Sheet.