

PRODUCT PROFILE

Sodium Hypochlorite

NaOCl

Sodium Hypochlorite FAQ's

What is sodium hypochlorite?

Hill Brothers sodium hypochlorite (NaOCl) is a greenish-yellow liquid commonly referred to as "Bleach". It is a solution made from reacting chlorine with a sodium hydroxide solution. Sodium hypochlorite has a variety of uses including, water treatment, water purification, odor removal, and disinfection. Sodium hypochlorite is also used as a bleaching agent in textile, detergents, and paper and pulp industries.

At what concentration do I use sodium hypochlorite?

Sodium Hypochlorite is used in various concentrations depending on the application. A concentration of 3% to 6% sodium hypochlorite can be used for laundering clothes and as a household and hospital disinfectant etc. A concentration of 12% to 16% can be used as a disinfectant in swimming pools, water treatment and waste water treatment. Hill Brothers sodium hypochlorite is certified to NSF/ANSI Standard 60 and as such has a maximum use level of 84mg per liter.

What material should pipe and storage containers be made of to avoid contamination and increased decomposition of the sodium hypochlorite?

Compatible pipe materials include PVC, Teflon lined pipe and Titanium pipe. Compatible materials for containers and storage tanks include, Polyethylene, Fiberglass reinforced plastic, rubber lined steel or titanium. Because the components of a pump may come into contact with the sodium hypochlorite solution, it is also important to consider the material that your pumps are made of. The ideal choice is a pump made from titanium. However, these pumps are expensive. Alternatives include nonmetallic pumps or Teflon or Tefzel lined steel pumps.

Our bulk sodium hypochlorite storage containers have white sediment on the bottom. What is this and how can this be avoided in the future?

Unfortunately, by the nature of the product, as the sodium hypochlorite ages, precipitates will form and fall out of the suspension collecting as a fine layer on the bottom of the storage tank. Because impurities will increase the decomposition rate of the bleach, regular cleaning of the storage tank is important. Frequent cleanout will decrease the buildup of suspended solids and ensure better stability of the product stored in the tank. Good practice is to have two storage tanks. This will allow one tank to be completely emptied before adding new product.

What are the conditions at which sodium hypochlorite should be stored?

Hill Brothers sodium hypochlorite should be stored in vented tanks or containers composed of compatible materials. Tanks and containers should be white or opaque to protect the product from decomposition from UV light. If possible, tanks and storage containers should be located in a shaded area. The product should be kept as cool as possible to avoid decomposition and extend the shelf life of the product. Product kept at 60°F is ideal if decomposition is a problem. Be aware that the decomposition rate is increased by a factor of 3.5 with every 10°C increase in storage temperature. Factors that must be considered when determining the best way to store your sodium hypochlorite include; How much product is ordered at a time, at what rate is the product used and what facilities do you have to work with etc. If your facility does not meet the ideal conditions, then you may want to consider ordering smaller amounts of product more often.

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What terms are used to define the strength of sodium hypochlorite?

Depending upon the region of the world, manufacturer, or industry, the strength of sodium hypochlorite can be identified using several different terms.

- Weight percent of sodium hypochlorite
- Grams per liter (GPL) of available chlorine or sodium hypochlorite
- Trade percent of available chlorine of sodium hypochlorite

The strength of Hill Brothers sodium hypochlorite is typically expressed as weight percent of sodium hypochlorite. For more information on these terms please refer to Hill Brothers technical bulletin, Sodium Hypochlorite General Information.

What is high purity sodium hypochlorite?

Hill Brothers sodium hypochlorite is manufactured using the highest quality raw materials. In addition to this, our sodium hypochlorite passes through filters during the manufacturing process. During filtration suspended solids are removed from the sodium hypochlorite thereby increasing stability and improving color and turbidity. For more information please refer to the Hill Brothers technical bulletin, Sodium Hypochlorite Stability.

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