

Sodium Hypochlorite (Coronavirus Disinfectant)

Sodium hypochlorite

Sodium hypochlorite (NaOCl) is a compound that can be effectively used for water purification and general disinfectant.

It is used on a large scale for surface purification, bleaching, odor removal and water disinfection.

What are the characteristics of sodium hypochlorite?

Sodium hypochlorite is a clear, slightly yellowish solution with a characteristic odor.

Sodium hypochlorite is unstable. Chlorine evaporates at a rate of 0,75 gram active chlorine per day from the solution. Then heated sodium hypochlorite disintegrates. This also happens when sodium hypochlorite comes in contact with acids, sunlight, certain metals and poisonous and corrosive gasses, including chlorine gas. Sodium hypochlorite is a strong oxidator and reacts with flammable compounds and redactors. Sodium hypochlorite solution is a weak base that is inflammable.

These characteristics must be kept in mind during transport, storage and use of sodium hypochlorite.

What happens to the pH value when sodium hypochlorite is added to water?

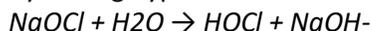
Due to the presence of caustic soda in sodium hypo chlorite, the pH of the water is increased. When sodium hypo chlorite dissolves in water, two substances form, which play a role in for oxidation and disinfection. These are [hypochlorous acid](#) (HOCl) and the less active hypochlorite ion (OCl⁻). The pH of the water determines how much hypochlorous acid is formed.

What are the applications of sodium hypochlorite?

Sodium hypochlorite is used on a large scale as a disinfectant. For example in agriculture, chemical industries, paint- and lime industries, food industries, glass industries, paper industries, pharmaceutical industries, synthetics industries and waste disposal industries. In the textile industry sodium hypochlorite is used to bleach textile. It is sometimes added to industrial waste water. This is done to reduce odors. Hypochlorite can be used to prevent algae and shellfish growth in cooling towers. In water treatment, hypochlorite is used to disinfect water. In households, hypochlorite is used frequently for the purification and disinfection of the house. It is considered to be the safe disinfectant.

How does sodium hypochlorite disinfectant work?

By adding hypochlorite to water, hypochlorous acid (HOCl) is formed:



Hypochlorous acid is divided into hydrochloric acid (HCl) and [oxygen](#) (O). The oxygen atom is a very strong oxidator. Sodium hypochlorite is effective against bacteria, viruses and fungi. Sodium hypochlorite disinfects the same way as [chlorine](#) does.

What are the advantages of sodium hypochlorite use?

Advantages

Sodium hypochlorite as a disinfectant has the following advantages:

It can easily and be stored and transported when it is produced on-site. Dosage is simple. Transport and storage of sodium hypochlorite are safe. Sodium hypochlorite is as effective as chlorine gas for disinfection. Fruits and vegetables can be washed with 0.5% Solution to disinfect from virus and bacteria.

What are the available packing of Sodium hypochlorite?

The product is available as 'Sodium hypochlorite 10 % solution' 250 kgs net packed in HmHDPE drum.

The Sodium Hypochlorite contains 10% available chlorine.

The Product is currently produced in our Dahej, Gujarat unit only.

As per Government of India directive for disinfection against **COVID-19** the desired surfaces should be treated with 1% Sodium Hypochlorite solution.

Sodium Hypo Chlorite 1% solution is prepared by adding 1 lit of Sodium Hypo Chlorite 10% with 9 lit of tap water.

1% solution is safe disinfectant for Fruits and vegetables and is most effective sanitizer.

To be stored in cool and dark place (away from sunlight)

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