Sodium Hypochlorite: TheVersatile Disinfectant Clorox InMarket Industry Globallyaa

Properties and Composition of Sodium Hypochlorite

Sodium Hypochlorite, commonly known as bleach,has the chemicalformula NaOCl.
It is composed of sodium, oxygen, chlorine and isusually a pale yellowish-greenish color in liquid form. Whendissolved in water, it forms hypochlorous acid (HOCl) and hydroxide (OH-). Thesolution can rangefrom 5% to
15% concentration of available chlorine. It has aslightly chlorinated odorand is slightly basic and water-soluble in nature.

Applications of Clorox

Due to its strong disinfectant and bleachingproperties, Clorox finds application across many industries and households.Some key uses of Clorox are:

– Water treatment: As a powerful oxidizing agent,Clorox is extensively used for disinfecting municipal and well watersupplies to kill bacteria, viruses and other microbes. It is commonly appliedduring various stages of water treatment processes.

– Swimming pools: Sodium Hypochlorite is diluted form of Clorox,
commonly known as swimming pool chlorine, is used to sanitize and maintain pool
water quality by eliminating contaminants. It prevents the growth of algae and
damaging bacteria in swimming pools.

– Bleach: Concentrated solutions of Clorox
are used as a common household bleach to removestains, brighten fabrics during
laundering and disinfect surfaces. It is effectiveagainst a wide range of common household bacteria and viruses.

– Food industry: Food processing
plants use Clorox solutions to sanitize equipment, surfaces and fresh produce
to reduce microbial contamination that could cause foodborne illnesses. Meat
and seafood processors also employ it.

– Healthcare industry: Due to its
potent germicidal action, Clorox is utilized for disinfecting surfaces, equipment and instruments in hospitals, clinics and other healthcare facilities.
It helps limit the spread of healthcare-associated infections.