

## BENEFITS OF HOCl SANITIZER & DISINFECTANT

### HYPOCHLOROUS ACID (HOCl)

HOCl is Nature's oldest disinfectant because it can be found inside all humans. Yes, it is the same substance our white blood cells produce to fight off infections, disease or trauma. Its proper chemical name is 'Hypochlorous Acid' or HOCl and it provides the unique power that eradicates damaging organisms, while not causing any harm to the delicate cells that make up our bodies.

Hypochlorous Acid has been known for nearly 200 years and it could be produced chemically, but the compound was only in a stable solution for about 4 hours, so to be useful it had to be made on-site. Although producing HOCl is not complicated, stabilizing the solution is very difficult. However, modern technology has recently overcome this disadvantage by manufacturing a stable HOCl solution that has more than a 2-year shelf life. Therefore it is now professionally bottled and available across the world...

#### HOCl – Nature's Super Powerful Disinfectant

HOCl manufacturing process is accomplished by electrolysis, which changes the chemical structure of salt and water into an effective sanitizer and green cleaner, but with no harmful chemicals, fumes or residues.

The active molecule in the electrolyzed water is hypochlorous acid (HOCl), which is a weak acid that forms when the chloride that originates from food-grade salt (NaCl or sodium chloride) dissolves in water. Inside our body's biology, the same hypochlorous acid is generated in activated neutrophils or white blood cells, by peroxidation of chloride ions. Kills viruses and odour-causing bacteria on soft surfaces by eliminating the source. Great for upholstery, curtains, carpets and auto interiors.

HOCl is the natural compound that is our immune system's germ fighter and contributes to the internal destruction of dangerous bacteria, viruses, fungi and parasites.

Chlorine ions are also the ingredient that gives regular household bleach (sodium hypochlorite or NaClO) its anti-microbial power. Though it is the most widely used surface disinfectant, bleach also has some real drawbacks, for instance: inactivation in organic matter; it is corrosive to some metals; and it will leave a particulate residue after use...

Fortunately, as a disinfectant, hypochlorous acid is a very potent oxidant that without any negative side effects is 80 to 100 times more powerful than household bleach!



## The science of professional disinfectants

The latest advancements in disinfection for professional use needs to meet many criteria, not only in terms of efficacy, ease of use, time constraints and also a sterile option for differently graded environments. When selecting the ideal 'cleanroom' disinfectant, a good understanding of the product characteristics is essential. A successful disinfectant requires high resistance to the specific environment's pathogens spores; it has to be non-flammable, so can it be used over large areas with no health and safety concerns; also select a product that is fast-drying with short contact times; and one that leaves no disinfectant residue or, as a minimum, free rinsing residues, which will again reduce bio-decontamination time.

Progress in production methods have allowed the creation of a disinfectant that meets all of the requirements mentioned above...

### HOCl – Your Immune System's Germ Fighter

History - Hypochlorous acid was discovered in 1834 by the French chemist, Antoine Jérôme Balard (1802–1876). He also named the acid and its compounds. Since 1785, bleaching agents were prepared in a French chemical plant in an area called Javel, South-West of Paris, and they are still known as 'Javel water' to this day. The earliest uses of chlorine-based disinfectants were in 1850, after an outbreak of cholera. Hypochlorite solutions were first used for the treatment of open wounds during World War I, but it wasn't until the 1930s that liquid bleach came into widespread use and it still is popular today. For use in hospitals, since the 1990s there was a great surge in the interest of on-site generation of HOCl disinfectants.

The picture on the right shows the HOCl molecule, with hydrogen and oxygen forming the exclusive compound: hydroxide ion of chlorine.

Being Nature's super-powerful disinfectant, HOCl is an all-natural, organic, non-toxic and non-hazardous, colourless, water-soluble, biodegradable, pH neutral solution that is widely used for rinse-free, broad spectrum disinfecting and sanitizing. No unnecessary ingredients are added to preserve the product.

Applications - Spray anywhere on the body (only avoid eyes) / protect children and babies / an ideal wound care application with a powerful and rapid killing effect on all microorganisms / home cleaning & sanitizing solution, especially kitchen and bathroom, spray working surfaces, such as furniture, pillows, bedding, shoes, etc / just spray in the air to actually remove smells, not just cover them up / treat food preparation areas / safe for cleaning fresh fruits and vegetables and may reduce pesticide residue for preserving fresh produce / approved for use in organic crop production / great for purifying water supplies / safe to use on pets for cleanliness / reduce pests and vermin.

Recommended to eliminate and replace all household chemicals with this non-toxic product, saving money and reducing our carbon footprint, not to mention how poisonous some household cleaners are and the risks they pose to children.

"HOCl Electrolyzed Water solution is a safer sanitizer and disinfectant!"

**NATURAL ORGANIC CLEANSING WASH** Aids in your skin's natural healing: face, body and hands

Directions: spray or pour HOCl over target areas – Let dry. No rinse required. External use only. Avoid eyes.

**FIRST AID TREATMENT:** by accidental release, HOCl is biodegradable and has limited activation period, so there are no potential risks to the environment. In case of contact with eyes, rinse with water for 5 minutes.

**STORAGE:** keep in original container for maximum result.