



Why Hypochlorous Acid (HOCl) is the only disinfectant you'll ever need

A tough-sounding acid that is powerful enough to kill Covid-19 in seconds but gentle enough to use on your pets, around your kids and on your own hands, skin, mouths and eyes?

It sounds too good to be true but hypochlorous acid, or HOCl, has been creating a buzz over the past year in its efficacy in the fight against Covid-19 and its adoption by healthcare providers across the UK and a plethora of new brands entering the market.

What is Hypochlorous Acid?

Starting with the basics. Hypochlorous acid is one of the most effective known biocides and is the same chemical produced by the mammalian immune system to kill invasive organisms and fight infection. It is also known as electrolysed water or HOCl and is made when electricity is used to change the chemical structure of salt and water, turning it into nature's super powerful anti-microbial cleaner that is more effective than other disinfectants available.

It was first used on a mass scale during the First World War in 1914 when HOCl was used to irrigate the wounds and it was noted soldiers healed in half the time as those who didn't use it as part of their treatment.



Why haven't I heard of it?

One of the reasons many have not heard of HOCl is that up until 2002 electrolysed water only had a shelf-life of 1-2 hours. The solution simply broke back down into plain salt water very quickly, making it difficult to bottle and store.

However, Aqualution, born out of a pharmaceutical company, found a way to stabilise the biocide during the electrolysis process producing the purest HOCl with a minimum of 12 months shelf life enabling it to be bottled and sold commercially.

And hypochlorous acid is actually more mainstream than you may think. M&S have been using our product for years to disinfect fresh produce prior to packing. Care homes throughout the UK (including BUPA) use it as both a surface disinfectant and fogging solution whilst it has also been recommended by Pandora Dental for use throughout UK in dental surgeries and a hypochlorous acid product is even in the top 10 pet products sold on Amazon.

Why should I use it?

The real question is why shouldn't you use it?

The uses and benefits of HOCl are astounding.

Hypochlorous acid can be used in a huge variety of ways and in a vast number of sectors for a number of reasons:

Speed: hypochlorous acid kills germs in seconds. Our HOCl has been certified to have a kill rate in 60 seconds but in additional trials it has been proven to work in less than 10 seconds.

Power: hypochlorous acid is over 300 times more powerful than bleach. Our pure HOCl at 150ppm packs the same power as bleach at 500ppm.

Gentleness: despite being significantly more powerful than bleach, HOCl is as gentle as water with a neutral pH meaning it is super kind to skin and in some countries is authorised as an acne treatment.

Cost: hypochlorous acid is relatively cheap to make and incredibly cost effective when compared to hydrogen peroxide vapour (HPV) which is currently the solution of choice in the NHS for infection control.

Clean and green: the bio-degradable nature of HOCl is what gives it its green credentials. It simply breaks down to water and salt leaving no nasties and featuring no hazard warnings on its labels. In fact, our hypochlorous acid is used in food production and processing without the need to rinse.



Is it safe?

Hypochlorous acid is the ideal disinfectant, not only for its incredible kill rate across a broad spectrum of pathogens including 99.9999% of bacteria and 99.99% of viruses but also because, unlike other products in the chlorine family, such as bleach (sodium hypochlorite), it carries zero warnings.

Although there are different regulations in different countries around claims, usage and safety, our pure format is used in baby products, skin care, eye care, dentistry, pet care and in food processing so its safety speaks for itself.

What should I use it for?

Hypochlorous acid is ideal as a surface disinfectant in any environment but because of its gentleness, speed and efficacy is perfect for healthcare settings, school and other education establishments. It can be used without PPE in approved fogging machines and is in the process of being approved by HSE as a hand sanitiser providing the perfect alternative to alcohol based sanitisers.

It can be used in first aid applications for both humans and animals – as shown by leading brands Renasan, Natrasan and NVS. Suitable for all animals from companion animals to farm animals, birds, horses and game, our new unique pure hypochlorous acid gel is a revolution in healthcare. Designed to adhere to the site of application to care and protect while helping to keep the area clean and free from potential infection.

An exceptionally effective deodoriser, hypochlorous acid freshens rooms, kitchen, pet bedding and toilets without masking odour with artificial fragrances.

HOCl is used extensively in both professional and commercial kitchens and because it is used in food production it can also be effectively used around food and in hospitality with no safety concerns.

Our hypochlorous acid is also the first in the UK to be authorised as a medical device via the CleanCert brand and many more pharmaceutical applications are in development.

What next for Hypochlorous Acid?

The possibilities for hypochlorous acid are endless and Protox is at the forefront of its innovation.

To find out more about the hypochlorous acid we produce, please visit our website and view our Protox DES surface disinfectant product.