

BEWARE OF IMITATIONS – NOT ALL HOCL IS THE SAME!

Do you really know that what you are using is hypochlorous, HOCl? How do you know what to trust?

There has been an explosion in hypochlorous, or HOCl, products hitting the market since the pandemic hit in early 2020 with all highlighting the benefits of this amazing biocide that effectively bottles the same chemical produced by the human immune system to fight infection. All claim to kill up to 99.9999% of pathogens quickly and safely with some marketed as compatible with fogging machines, some for skin and hands and others for surfaces including, in some cases, babies bottles and dummies.

HOCl in its pure form is undoubtedly incredible; it has been proven to kill *E. coli*, Salmonella, *C. difficile*, Coronaviruses and Norovirus faster than other disinfectants and requires no special handling or PPE.

However, the science of hypochlorous acid is, at the same time, deceptively simple and highly complex and whilst some products are marketed as HOCl or electrolysed water they are often anything but. Regulations are fraught with difficulty. Many of these products claim to be compliant with UK and EU biocidal products regulations, have slick websites and brochures, but in reality, many do not have the individual EU registration that the law demands.

From tests undertaken on “hypochlorous” products it transpires that many are actually contaminated with sodium hypochlorite (bleach) which decay fairly rapidly or they are very weak solutions that are ineffective in the presence of dirt. Worryingly, others are very potent combinations of hypochlorous and bleach with concentrations in excess of those authorised and in some cases up to 5000ppm that are not safe to use around people. Some products also don't have the correct guidance and instructions, are in white or clear bottles which allows UV light in and will destroy the molecule (if it is hypochlorous) significantly reducing shelf life to less than three months.

When developed intelligently and with scientific rigor, hypochlorous acid can be rendered safe and stable and a powerful product to fight infection across a number of industries. Our HOCl technology is the only available technology that produces completely stable, pure HOCl at a neutral pH of 7.2 and at a parts-per-million concentration of 150-200ppm. This goldilocks zone gives the most optimum range for purity, efficacy, safety and stability, providing 12 months shelf-life. The products that we produce for our partners are all sold in black HDPE bottles to ensure that the product is not affected by UV, heat or agitation.

So what should you look for in an HOCl product:

- 150-200ppm
- 7.2pH
- The product complies with the BPR
- Black HDPE bottles
- Expiry dates that do not reduce on opening
- Batch numbers to give traceability
- The Aqualution Inside logo.