

Wheelio Products

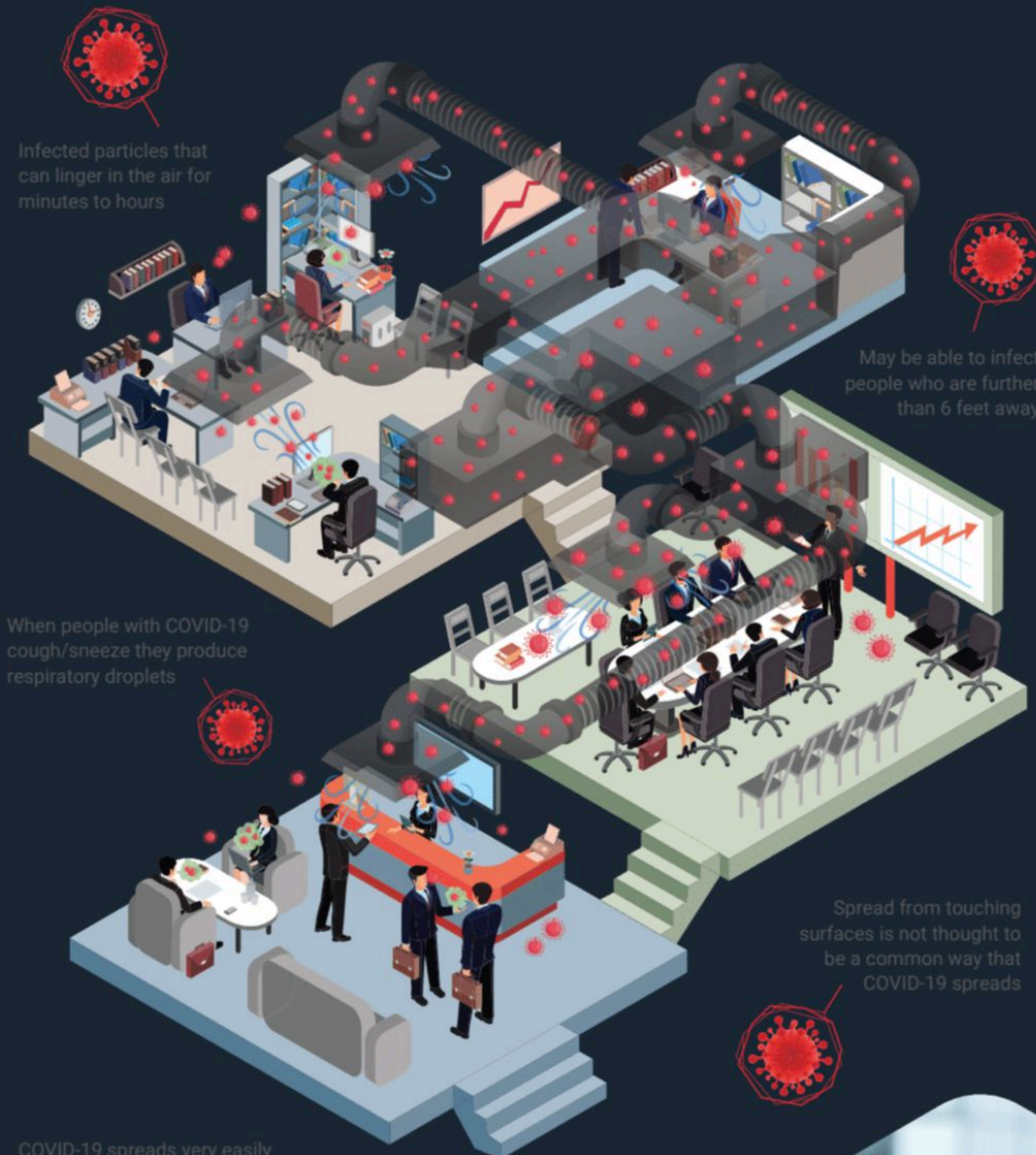
Briotech Benefits

Mark Maakestad • mark@wheelioproducts.com • (206) 337-5777



CDC ON AIRBORNE TRANSMISSION

Guidance for Public Spaces, Businesses, Schools, and Homes



SOURCE: [cdc.gov](https://www.cdc.gov), [click here to view](#)

REVIEW WHAT WE KNOW

Reviewing the Facts of the EPA, EHS, and CDC Guidance and What That Means For the Re-Opening Planner

- COVID can spread through air and is less likely to spread on surfaces.
- To date, no products have been approved for air decontamination, and agencies only recommend products for surfaces.
- Therefore, it is up to the business's COVID response planner to use their best judgement on how to proceed on developing a re-opening plan and how they can reduce viral load.
- When using a disinfectant it's reasonable to assume that it will become aerosolized within the environment's air.
- According to Environmental Health and Safety (EHS) guidance it's important to research the Active Ingredients and the Safety Data Sheet of any given Disinfection
- EHS states, "Avoid inhalation over-exposure" of a heavy spray pattern from becoming another liability by choosing the best-in-class Active Ingredients.

BRIOTECH CAN HELP

SOURCE: ehstoday.com [click here to view](#)

⚠️ EPA, OSHA, EHS Warning

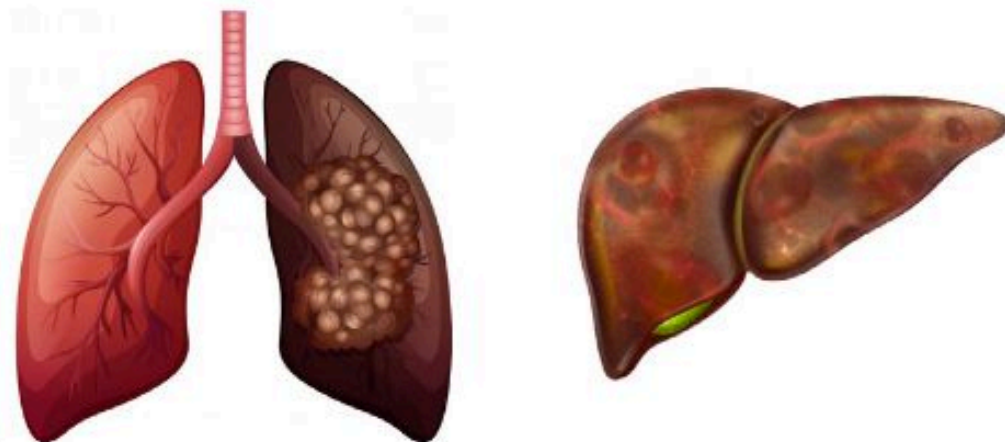


Many common household cleaning products contain chemicals that can harm your body and some of these chemicals can:

- Cause or trigger asthma
- Cause cancer
- Irritate or chemically burn your lungs and skin
- Interfere with functioning of your liver and other organs
- Affect your reproductive system
- Affect the health of unborn babies

The risk of experiencing these health effects depends on:

- How hazardous the product is and how concentrated it is
- How often the product is used
- The amount that gets into your body
- The age, health, and gender of the person using the product



Avoid product that list these ingredients:

- 2-butoxyethanol (or ethylene glycol monobutyl ether) and other glycol ethers
- Alkylphenol ethoxylates (some common ones are: nonylphenol and octylphenol ethoxylates, or octoxynols)
- Bisphenol A
- d-Limonene
- Dyes (may be listed as FD&C or D&C)
- Ethanolamines (common ones to look out for are: monoethanolamine [MEA], diethanolamine [DEA], and triethanolamine [TEA])
- Fragrances
- Parabens
- Phthalates
- Pine or citrus oil

- Quaternary ammonium compounds (look out for these: alkyl dimethyl benzyl ammonium chloride (ADBAC), benzalkonium chloride, dodecyl-dimethyl-benzyl ammonium chloride; lauryl dimethyl benzyl ammonium chloride, benzyl-C10-16-alkyldimethyl, chlorides; benzyl-C12-16-alkyldimethyl, chlorides; benzyl-C12-18-alkyldimethyl, chlorides; benzyl-C16-18-alkyldimethyl, chlorides; and didecyl and dodecyl dimethyl benzyl ammonium chloride)
- Triclocarban
- Triclosan
- Bleach or sodium hypochlorite





Level Up to a Healthy Lifestyle

	Briotech HOCl	Hydrogen Peroxide	Chlorine Dioxide	Sodium Hypochlorite (Bleach)	Ozone	Isopropyl Alcohol	Glutaraldehyde
Kills Bacteria & Virus	✓	✓	✓	✓	✓	✓	✓
Non-Corrosive	✓	✗	✗	✗	✗	✓	✗
Ready-to-Use	✓	✓	✓	✓	✗	✓	✗
Deodorizer	✓	✓	✗	✓	✓	✓	✗
Storage Cautions	✓	✗	✗	✗	✗	✗	✗
Non-Flammable	✓	✓	✗	✓	✓	✗	✓
Safe for Use (no PPE)	✓	✗	✗	✗	✗	✗	✗
Easily Disposed	✓	✓	✗	✗	✗	✗	✗

The Problem

- A 20-year study released in 2018 by the American Journal of Respiratory and Critical Care Medicine showed that cleaning with bleach once a day is as damaging to your lungs as smoking a pack of cigarettes a day.
- A study released in 2017 by the European Lung Foundation found that nurses who disinfect with Quats just ONCE a week experienced a 32% increased risk of developing COPD, which is directly linked with lung cancer.
- The EPA is currently recommending that traditional household cleaners and disinfectants be avoided as they can lead to serious health complications including asthma, cancer, chemical burns, reproductive issues and more.
- *Many types of cosmetics, for instance, contain parabens and phthalates — substances that the Campaign for Safe Cosmetics says can disrupt hormone function and may raise the risk of some types of cancer. -*

The infographic is split into two main sections: a red section on the left and a blue section on the right, separated by a large 'VS' graphic.

WHAT YOU ARE USING (Red section, marked with a red 'X'):

- Text: BLEACH, ALCOHOL, QUATERNARY AMMONIA, DICHLOROISOCYANURATE, THYMOL
- Icons: A central diamond-shaped hazard label with six symbols: skull and crossbones, flame, exclamation mark, hand being washed, person with star on chest, and a dead tree.
- Text at bottom: 99% OF DISINFECTANTS HAVE 1 OR MORE HAZARD WARNINGS...

WHAT YOU SHOULD USE (Blue section, marked with a blue checkmark):

- Text: HOCl
- Icon: A simple molecular structure of HOCl.
- Text at bottom: THE ONLY EPA LIST N DISINFECTANT WITH NO HAZARDS ON ITS SAFETY DATA SHEET (SDS).

The Solution: HOCl

We can offer the following attributes...

- All Natural - a substance found in the human body
- Clean Label - only 3 organic ingredients
- Eco-Friendly - no harsh chemicals to manufacturer & packaged in recyclable container
- Pure - free from additives, preservatives, fragrances, and allergy-inducing chemicals
- Effective - Powerful biocide, virucide & bactericide
- Non-irritating / non-corrosive / non-flammable / non-hazardous
- Same active ingredient can be used across product platforms for eye care, disinfection, oral care, and skincare

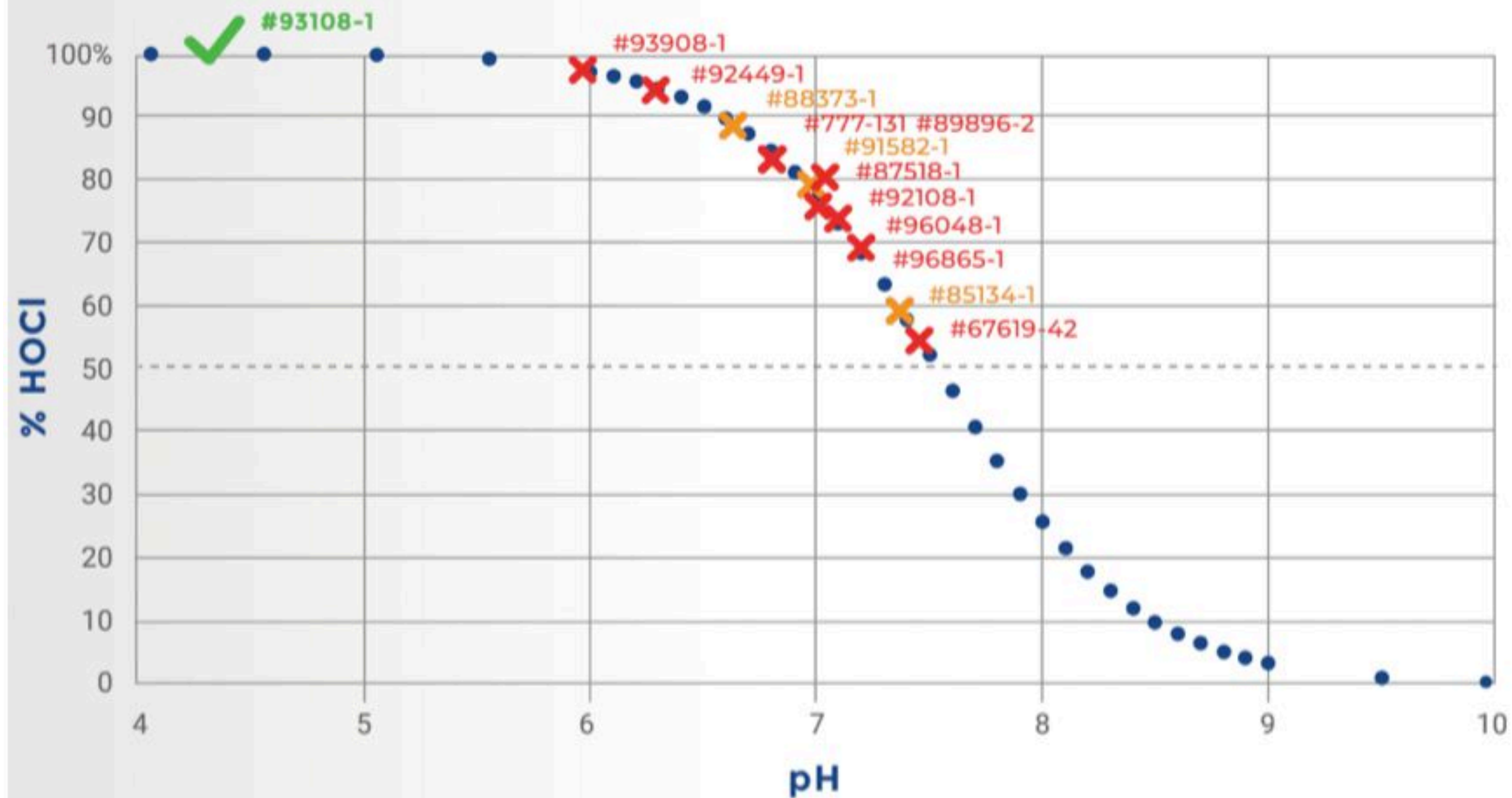
Our ingredient is HOCl (Hypochlorous Acid) and it is the perfect ingredient to solve a world of problems!



COMPARING ACTIVE INGREDIENTS OF COMMON DISINFECTANTS

	Authentic Pure-Form HOCl	Alcohol	Bleach	Peroxide	Quats	Chlorhexidine	Glutaraldehyde
Antibacterial	✓	✓	✓	✓	✓	✓	✓
Virucidal	✓	✓	✓	✓	✓	✗	✓
Fungicidal	✓	✗	✓	✓	✓	✗	✓
Non-Irritant for Skin/Eyes/Mucosal	✓	✗	✗	✗	✗	✗	✗
No Wait/Operational Disruption	✓	✗	✗	✗	✗	✗	✗
Non-Hazardous by 29 CFR 19101200	✓	✗	✗	✗	✗	✗	✗
No PPE Required for Handling	✓	✗	✗	✗	✗	✗	✗
Non-Drying/Non-Allergenic	✓	✗	✗	✗	✓	✗	✗
Food Contact Safe	✓	✗	✗	✗	✗	✗	✗
Rinse-Free	✓	✓	✗	✗	✗	✗	✗
Environmentally Friendly	✓	✗	✗	✓	✗	✗	✗
Biodegradable	✓	✓	✓	✓	✗	✗	✗
Non-Explosive	✓	✗	✗	✗	✓	✓	✓
Non-Flammable	✓	✗	✓	✗	✗	✓	✓
Does not Stain/Bleach	✓	✓	✗	✗	✓	✗	✓
No Resistant Strains	✓	✗	✓	✓	✗	✓	✓
Odor Control	✓	✗	✓	✓	✗	✗	✗
Removes Biofilm	✓	✗	✗	✓	✗	✗	✗

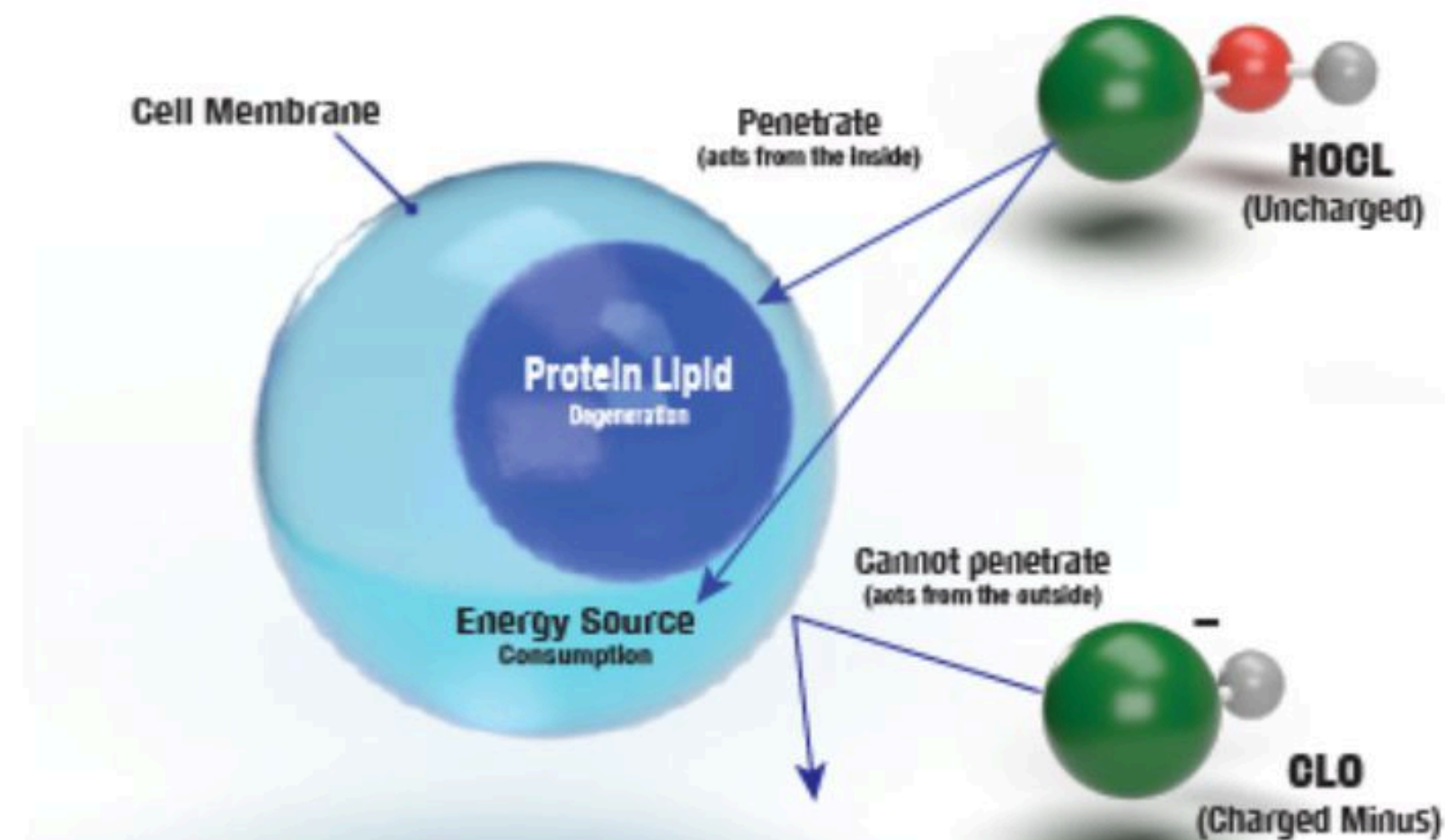
ANALYZING % HOCL AT A GIVEN pH AT ROOM TEMPERATURE FOR LIST N HOCL PRODUCTS



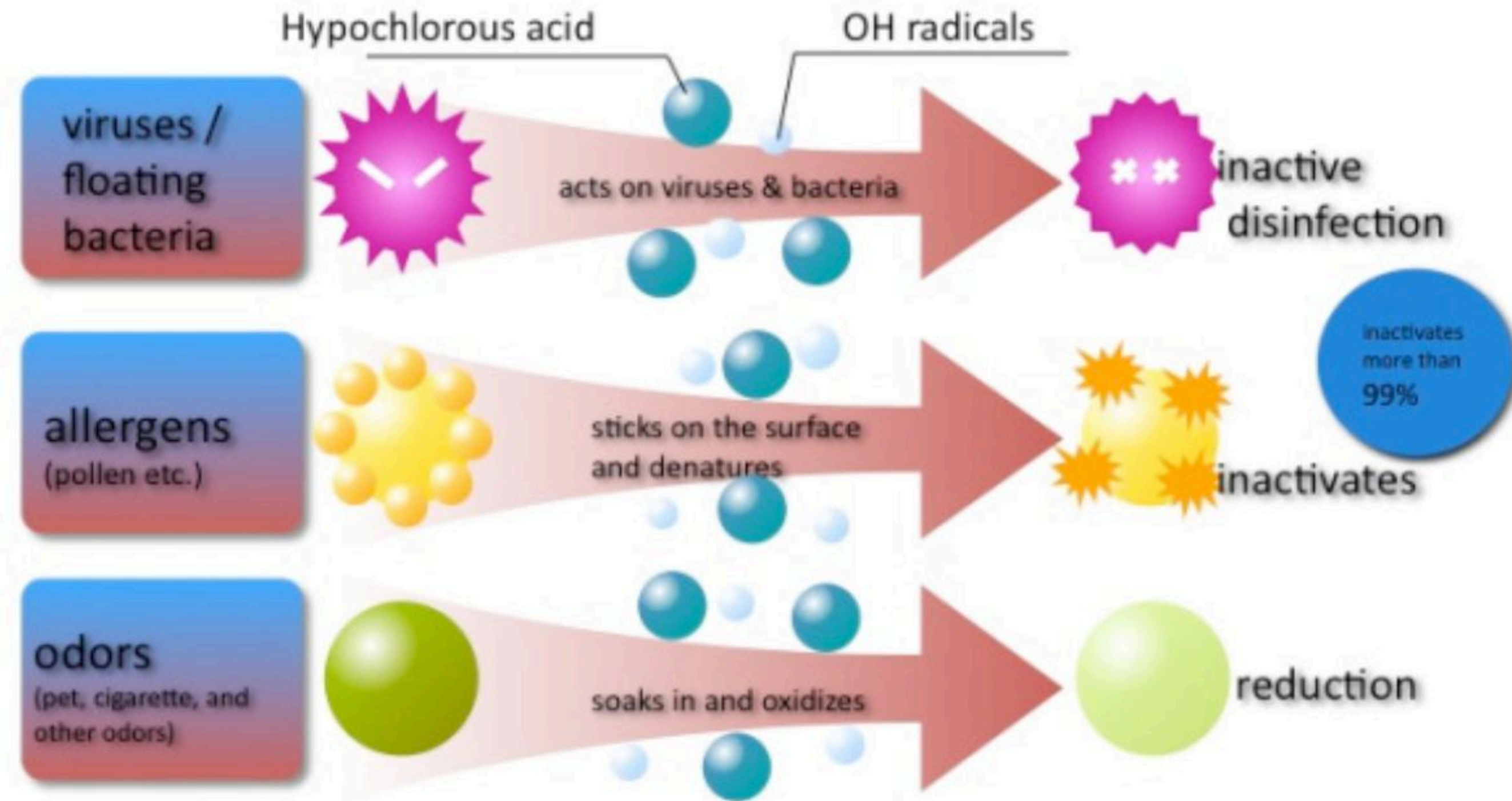
- ✗ Non-Transparent Labelers: List N impure HOCl makers that do not list Hypochlorite contamination in their Safety Data Sheet
- ✗ List N impure HOCl that do list Hypochlorite contamination, including hazard warnings.
- ✓ Only Briotech makes pure HOCl. An average of 70 batches analyzed shows an average pH of 4.4. This is Authentic pure-form HOCl at a skin-neutral pH.

HOCl – Efficacy Against Pathogens

HOCl works through oxidation of proteins, DNA, and carbon groups of non-mammalian compounds. HOCl is “charge neutral” and can penetrate the cell walls of pathogens much more efficiently than bleach (which is charge negative).



Disinfecting airborne microbes



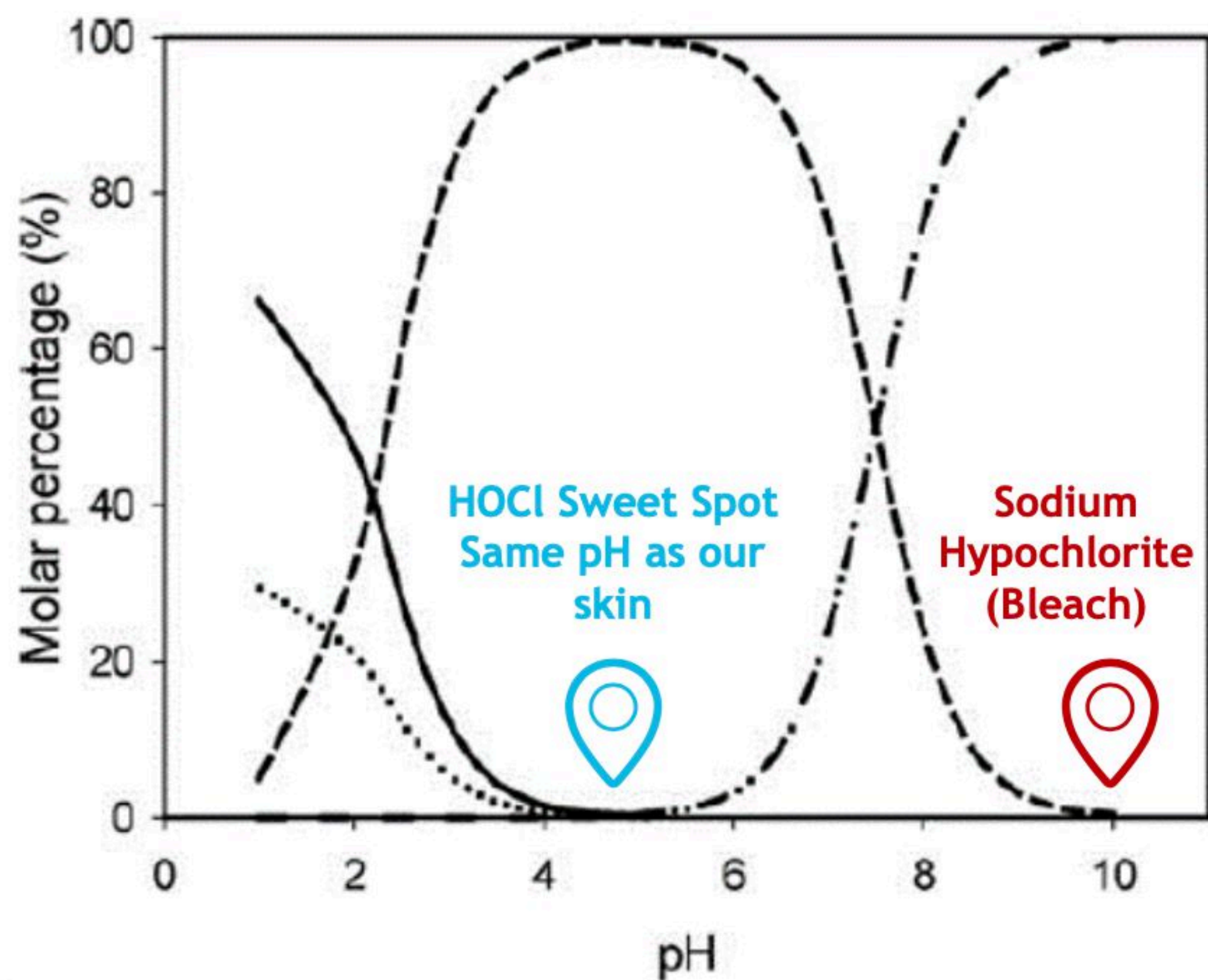
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HOCl - Chemistry of Aqueous (Chlorine)

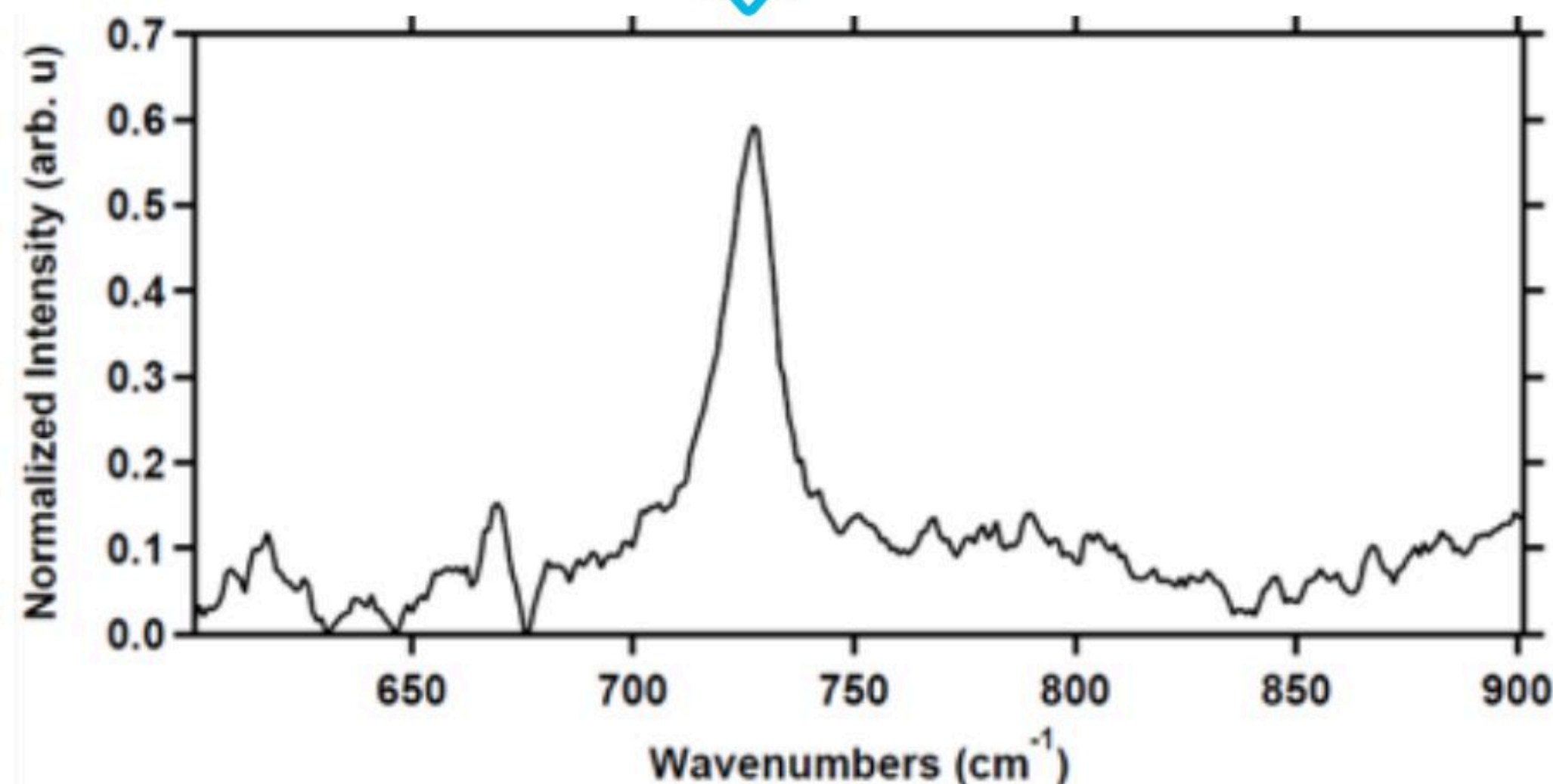
Chlorine exists in three (3) different states depending on the pH level. Briotech manufacturers at the right pH to ensure no contaminants.



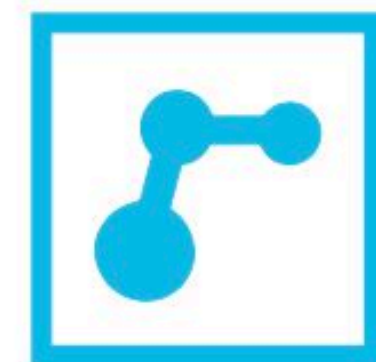
— pH vs $\text{Cl}_2(\text{aq})$
..... pH vs $\text{Cl}_2(\text{g})$
- - - pH vs HOCl
- · - pH vs OCl^-

BRIO HOCl™ optimum – pH 4.4, ORP 1140 mv
Most competitors – pH 6 – 7.5
HOCl Calculator [\(here\)](#)

Purity of BrioHOCl*



*Raman Spectroscopy by the University of Washington Molecular Engineering Laboratories, Seattle WA



HOCl: Why Isn't It A Household Name? (Yet)

- Patent Law - All-natural ingredient that could not be patented
- Moore's Law - Computing power that did not allow for the precision control required to maintain a pure and stable form of HOCl until 2010
- Industry didn't call for it - Oil & gas and agriculture required onsite generation and there weren't high standards for purity for scaled HOCl
- Household adoption & acceptance of Bleach, Quats and Ammonia

The challenge was disrupting these barriers so that HOCl could excel in the market. HOCl required three (3) things:

PURITY - *Directly Relates to Safety & Efficacy*

SCALABILITY - *Directly Relates to Cost & Supply*

STABILITY - *Directly Relates to Use & Reliability*

BRIOTECH HAS ALL THREE!

