

PCS cleaning strategy involving surfactant free cleaning with safer, more dilute forms of PCS Stabilized Hypochlorous Water Cleaning Without Harming.



Neutral pH PCS 250 Oxidizing Disinfectant/Disinfectant Cleaner

Use to clean frequently touched surfaces.

Apply to surface and wipe dry. **DIN: 02314843**

Kills Bacteria • Kills Viruses • Kills Fungi

Oxidizing Disinfectant Cleaner for use on hard inanimate non-porous environmental surfaces in domestic, hospital and health care facilities, institutions, schools and hospitality industries, where organic soils may be present.

✓ SAFE
Nonhazardous low concentration neutral pH Hypochlorous acid/sodium hypochlorite solution.

✓ EFFECTIVE CLEANING
Proven in three separate hospital trials to lower residual microbial bioburden to less than 1 colony forming unit per square centimeter after cleaning as compared to current hospital cleaning practices that averaged 2.797 CFU per square centimeter.

✓ ENVIRONMENTALLY RESPONSIBLE
Leaves no toxic residue in waste water stream that add to the pollutants that can create antibiotic resistant bacteria in the environment. Hypochlorous acid and sodium hypochlorite decompose in sanitary sewer systems in seconds. Natural formulation contains no synthetic chemicals. Endorsed and certified by the Envirodesic™ Certification Program for Maximum Indoor Air Quality™ and minimum environmental health impact.

✓ CLEANING WITHOUT TRANSFERRING PATHOGENS.
PCS Apply and Dry cleaning results demonstrated significantly better removal of pathogens and prevention of transfer of pathogens to adjacent surfaces. Previous QCT-3 studies demonstrated wiping high touch surfaces with pre moistened wipes or cloths transferred Murine norovirus and C.difficile.

Removal of hospital pathogens does not require high concentrations of chemicals with high alkali or acid pH values.

✓ IT IS TIME MANUFACTURERS DISCLOSE ALL INGREDIENTS
Complete list of ingredients

0.0250% Buffered Sodium Hypochlorite and Hypochlorous Acid.

The following ingredients are present at concentrations less than 0.02% Sodium Hydroxide, Sodium Carbonates, Sodium Chloride, Acetic Acid.

Disinfectant and detergent Residues Should Not Pollute and Linger in the environment adding to the pollutants that create Antimicrobial Resistant Bacteria.



*CLEANING WITHOUT TRANSFERRING INFECTIOUS DOSE OF PATHOGENS



Surfactants can cause Resistance

Reducing the development of antibiotic resistant bacterial populations is no longer just an issue for hospitals. We all need to do what we can, because the same conditions that promote resistance operate not only in hospitals but in other environments as well.

Microbiology 2023

[Biological and synthetic surfactant exposure increases antimicrobial gene occurrence in a freshwater mixed microbial biofilm environment](#)

Int. J. Environ. Res. Public Health 2023,

[Organic Compounds and Antibiotic-Resistant Bacteria Behavior in Greywater Treated by a Constructed Wetland](#)

Heliyon (2023)

[Direct Environmental concentrations of surfactants as a trigger for climax of horizontal gene transfer of antibiotic resistance](#)

Water Research Volume 236, 1 June 2023, 119944

[Direct The structure of biodegradable surfactants shaped the microbial community, antimicrobial resistance, and potential for horizontal gene transfer](#)

Environmental Science & Technology 2023 57 (20), 7645-7665 DOI: 10.1021/acs.est.2c08244

[Quaternary Ammonium Compounds: A Chemical Class of Emerging Concern](#)

Policy Recommendations - Immediately address the known threat of antimicrobial resistance. The medical field recommends that antibiotics be prescribed only when necessary and educate the public about proper use. Similar efforts to eliminate non-essential uses of antimicrobial QACs in consumer products are warranted. An example would be product labeling requirements such as

“To reduce the public health threat of antimicrobial resistance, use this product only when disinfection is necessary and not for general cleaning”.

Manufacturers should also be discouraged from implying a health benefit of QAC use in coatings durable product treatments without supporting evidence that these treatments are effective in reducing the transmission of infectious diseases.

[2023 United Nations Environment Programme](#)

The environmental dimensions of AMR include pollution from hospital and community wastewater, effluent from pharmaceutical production, run-off originating from plant and animal agriculture and other forms of waste and releases. These matrices may contain not only resistant microorganisms, but also antimicrobials, various pharmaceuticals, microplastics, metals and other chemicals, which all increase the risk of AMR in the environment.

Polluted waterways, particularly those that have been polluted for some time, are likely to harbour microorganisms that increase AMR development and distribution in the environment. With increasing pollution and lack of management of sources of pollution, combined with AMR in clinical and hospital settings and agriculture, risks are increasing.

