



PCS Stable NPH Neutral pH Equilibrium of Hypochlorous Acid and Sodium Hypochlorite rapidly penetrate biofilm matrix and bacteria cells. This rapid penetration allows PCS NPH Apply and Dry processes to Clean to Safer Levels in Health Care Critical Care Environments.

“At environmental pH values (6.5-8.5) half of the hypochlorite is in the undissociated form of hypochlorous acid and half is dissociated to the hypochlorite anion. Only the hypochlorous acid fraction is volatile” European Chemicals Agency

[Slightly acidic hypochlorous water effective against dual-species biofilm of *Listeria monocytogenes* and *Escherichia coli* strains isolated from Pangasius fish-processing plants](#)

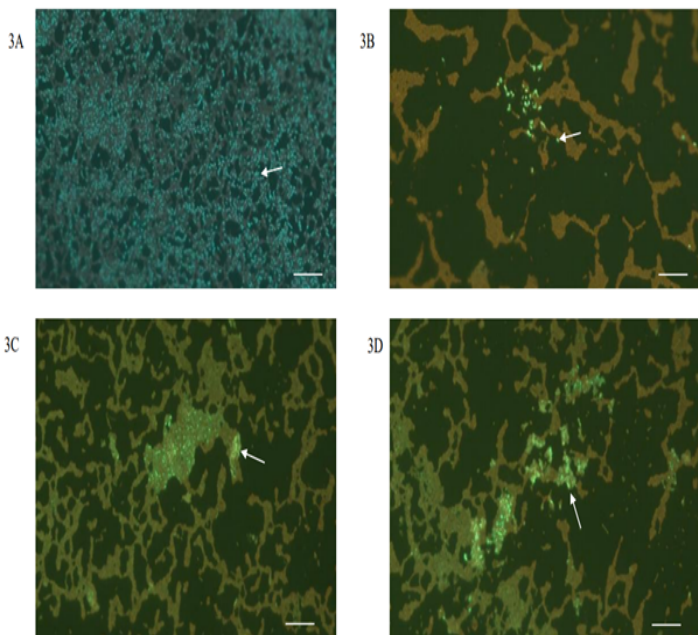


Fig. 3. Fluorescence microscopy images of dual species biofilm by *L.monocytogenes* and *E.coli* after different treatments.

3A, control sample; 3B, treatment with 40 mg/L SAHW; 3C, treatment with 100 mg/L NaOCl; 3D, treatment with 200 mg/L NaOCl. Scale bars correspond to 50 μm. Arrows show living cells.

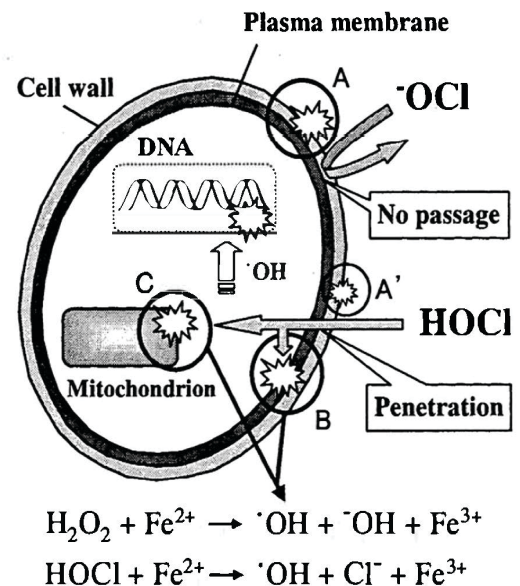


FIG. 2. A model illustrating the mechanisms of the germicidal actions of HOCl and $\cdot\text{OCl}^-$ based on their ability to penetrate the membrane into the microbial cell. Ionized $\cdot\text{OCl}^-$ has a poor germicidal activity because of its inability to diffuse through microbial plasma membrane, and it exerts an oxidizing action only from outside of the cell (circle A). HOCl can penetrate the lipid bilayer in the plasma membrane by passive diffusion due to its electrical neutrality. HOCl can attack the microbial cell both from the outside (circles A') and inside the cell (circles B and C), which is responsible for the potent germicidal activity of HOCl.