



STERILEX® WATER TREATMENT SOLUTIONS

For water treatment applications including industrial process water systems, open re-circulating or closed loop cooling water systems, and whirlpool spas, Sterilex offers innovative products to remove biofilm,* eliminate microorganisms, kill algae, and prevent biofouling in a single product technology.

Sterilex products are available from sanitation chemical providers. Please contact us for more information.

1.800.511.1659 | www.sterilex.com | sales@sterilex.com

*Biofilm removal claims approved for specific applications only. See product label for full label claims and usage instructions.

LR-WT0116

INDUSTRIAL PROCESS & COOLING WATER SYSTEMS

Sterilex® Ultra-Kleen Liquid Biocide is a two-part solution that can be used for both rapid remediation as well as ongoing system microbial control applications. When used in cooling tower systems with a pH ≥ 8.0 , Solution 1 is used alone. In closed loop systems or if the pH is < 8.0 , the two solutions are mixed together at the time of use.

Sterilex PerQuat® Technology...

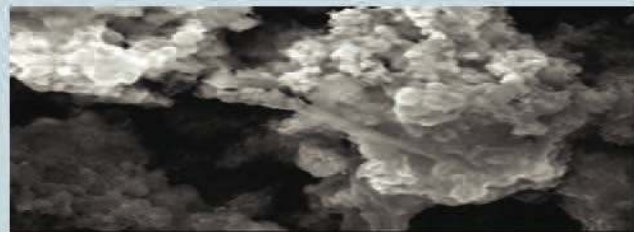
- Penetrates and removes biofilm from fouled systems and prevents fouling from reforming*
- Rapidly remediates heavily fouled systems or can be used on a maintenance basis to prevent biofouling
- Can be used as a hybrid non-oxidizing biocide and bio-dispersant in one technology
- Maintains process efficiency and reduces costs as compared to competitive biocide/dispersant programs
- Dramatically decreases bulk water counts including slime-forming and sulfate-reducing bacteria
- Rapidly increases heat transfer efficiency through biofilm removal

SPA APPLICATIONS

Pool and spa piping systems are a perfect breeding ground for resistant microbial biofilms. Specific Sterilex products are designed to treat these biofilms, which can act as a reservoir for pathogens. Sterilex® Ultra Disinfectant Cleaner eliminates biofilm from piping systems and disinfects pool and spa surfaces and small parts. Without complete removal of biofilm from pool and spa piping systems, microbial counts in the spa water can reach pre-treatment levels within 48 hours.*

YOUR BEST DEFENSE AGAINST BIOFILM

Biofilms, the natural habitat for >99.99% of organisms, are a complex matrix of bacteria, fungi and algae that are bound together in a sticky polysaccharide gel. Biofilms firmly attach to surfaces and provide a protective habitat for bacteria. Simply killing microorganisms, without removing the biofilm structure, can result in rapid re-colonization of bacteria and resistant residual colonies of bacteria. Sterilex products have the unique ability to penetrate the biofilm matrix and remove it from the surface – a proactive approach in preventing biofilm recurrence and microbial contamination.*



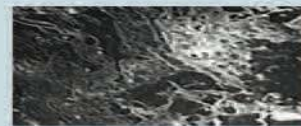
Before Sterilex® Ultra-Kleen Liquid Biocide



After Sterilex® Ultra-Kleen Liquid Biocide



Before Chlorine



After Chlorine



Before Quat



After Quat



Before Glutaraldehyde



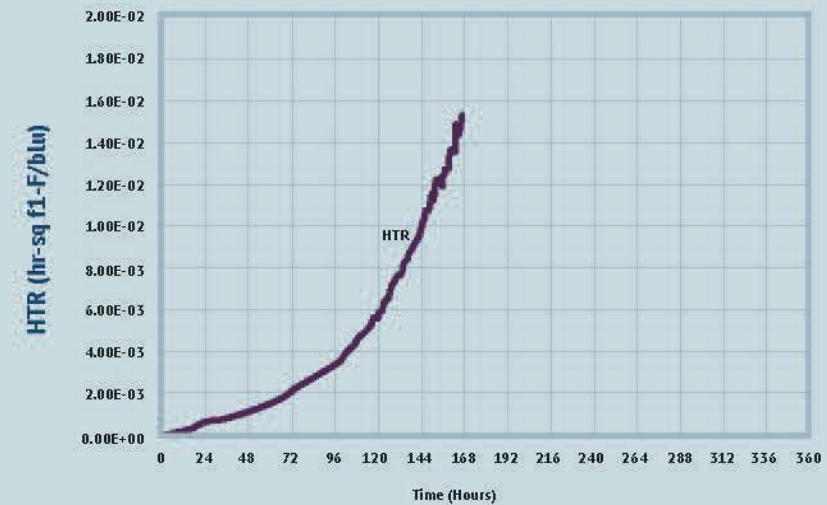
After Glutaraldehyde

THE CHEMISTRY

Sterilex PerQuat® Technology is based upon alkaline peroxide chemistry with phase transfer catalysis. This innovative proprietary technology has the unique ability to penetrate and remove biofilms and simultaneously kill pathogenic microorganisms.* Sterilex products create multiple physical and chemical mechanisms of action that when combined, do not induce microbial resistance. Sterilex PerQuat® products contain no chlorine, solvents, or VOCs.

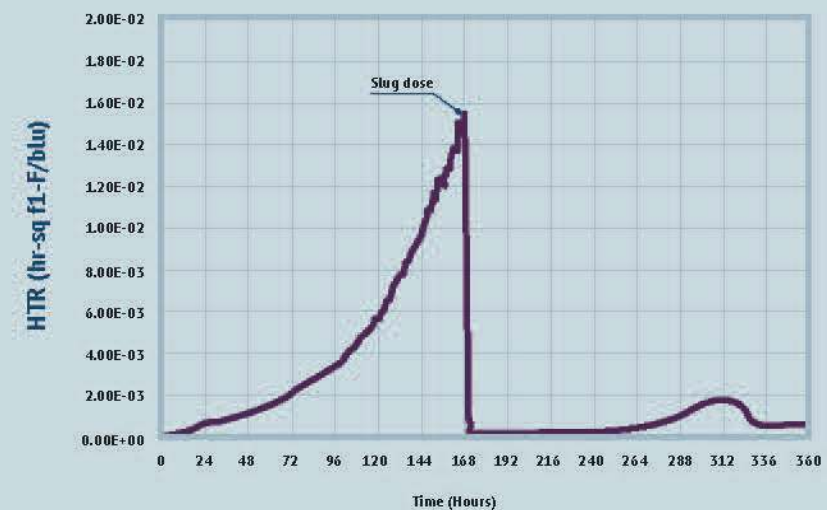
Multiple mechanisms of action:

- Oxidation
- Hydrolysis
- Micro-bubbling
- Attacks adhesins that glue biofilm
- Collapse polymer structure



AS BIOFILM GROWS, HEAT TRANSFER RESISTANCE INCREASES

Figure 1.
Biofilm Removal Efficacy of Sterilex® Ultra-Kleen Liquid Biocide



STERILEX=OPTIMAL EFFICIENCY

Figure 2.
Biofilm Removal Efficacy of Sterilex® Ultra-Kleen Liquid Biocide