

## FORTIFY YOUR COMPLEX WITH STERILEX PERQUAT® TECHNOLOGY FOR ANIMAL HEALTH

As public health concern over antibiotic resistance and the need for food safety continues to grow, it is imperative to provide livestock clean water to reduce the need for antibiotics and control food safety pathogens. Terminal waterline disinfection enhances your biosecurity program and reduces cross-contamination between grow-outs.

### WATERLINES

- + Penetrates and removes biofilm from animal drinking lines
- + Kills bacteria and resistant organisms found in waterlines
- + Prevents plugging of lines and nipple drinkers
- + Removes organics, slime and scale associated with biofilms
- + Reduces cross contamination between treated surfaces
- + Compatible with common waterline materials



Before



After

### BACTERIAL TEST RESULTS (LOG)

TYPICAL CHEMISTRIES	RATIO	START	4 HRS	24 HRS
PerQuat	2.50%	5.60	1.29	<1.00
Peroxide (35%)	3.00%	6.74	5.45	1.97
Bleach	0.78%	6.98	5.03	5.14
Citric Acid	0.78%	7.56	7.52	7.33
Silver Stabilized Peroxide	0.78%	5.86	4.23	3.24
Silver Stabilized Peroxide	3.00%	5.87	3.00	<1.00

S. Watkins, "Good Water, Good Birds," presented at the Virginia Poultry Health and Management Seminar, Roanoke, VA, April 8-9, 2008.



The Sterilex 2.5%... had the greatest reduction in APC with more than a 4 log reduction.

– S. Watkins, University of Arkansas

### HARD SURFACE CLEANING AND DISINFECTION

Sterilex offers the only product on the market specifically tailored to sanitize, disinfect and remove biofilm in animal drinking lines.

For use with:

- o Equipment
- o Environmental surfaces
- o Drains

Kills pathogens and inactivates viruses including:

- o *Escherichia coli*
- o *Salmonella enterica*
- o *Staphylococcus aureus*
- o *Pseudomonas aeruginosa*
- o *Campylobacter jejuni*
- o *Aspergillus niger*
- o Avian influenza
- o Newcastle disease virus
- o Porcine epidemic diarrhea virus (PEDv)
- o Porcine reproductive and respiratory syndrome (PRRS)
- o Rotavirus



## THE CHEMISTRY

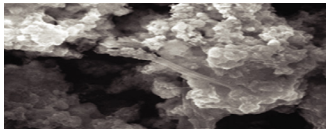
Sterilex's patented PerQuat technology is the first and only chemistry with products approved by the EPA to kill biofilm bacteria and remove biofilm in animal drinking lines. Active ingredients are based on quaternary ammonium compounds and hydrogen peroxide. An important role of quat is to serve as a phase transfer agent, combining with the peroxide ion to form a "PerQuat" molecule. This synergistic combination gives Sterilex products their unique biofilm penetration efficacy and provides a powerful level of performance through multiple physical and chemical mechanisms of action, including hydrolysis and oxidation.

## PERQUAT TECHNOLOGY

- + EPA-registered disinfectant, sanitizer and virucide
- + Available in powder or liquid form

## EFFECTS ON BIOFILM

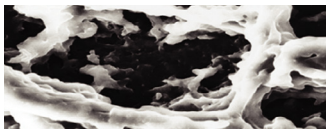
### Before/After Treatment with Various Biocides



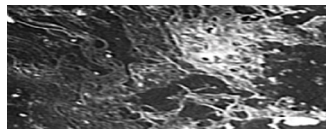
Before PerQuat Technology



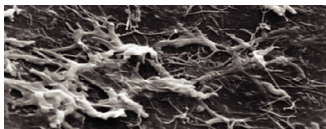
After PerQuat Technology



Before Bleach



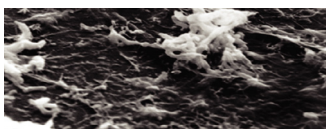
After Bleach



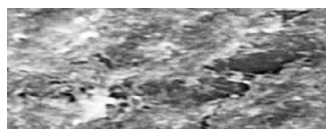
Before Quaternary Ammonium



After Quaternary Ammonium

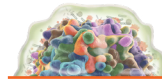


Before Glutaraldehyde

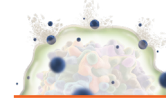


After Glutaraldehyde

## The Power of PerQuat Technology



Polysaccharide matrix



PerQuat molecule penetrating matrix



PerQuat molecule breaking up biofilm using oxidation + hydrolysis

## RECOGNITION OF FORTISOLVE

- + Recommended by top biofilm and infection control experts for remediation of biofilm on health care and institutional equipment
- + First company to receive "biofilm removal" claims for industrial and public health applications by US EPA
- + Clinically proven in numerous independent studies
- + "Biofilms Have a New Foil" published by USDA-ARS
- + Awarded "Bio Product of the Year" by the Technology Council of Maryland
- + Awarded USDA National Research Initiative Grant "Improved Methods for Control of Listeria Monocytogenes Within Biofilms in Meat and Poultry Processing Environments"

## FortiSolve™ Product Family A Two-Part Liquid Disinfectant



1.800.511.1659 | [www.sterilex.com](http://www.sterilex.com) | [marketing@sterilex.com](mailto:marketing@sterilex.com)

The content in this marketing material is provided for informational purposes only and does not supersede the product label requirements. Approved label claims may vary depending on geography, use site, organism, or other factors. Always refer to the product label for complete directions for use.

STX\_US-POAH\_0121