

# ProOxine®

## Disinfecting Solution

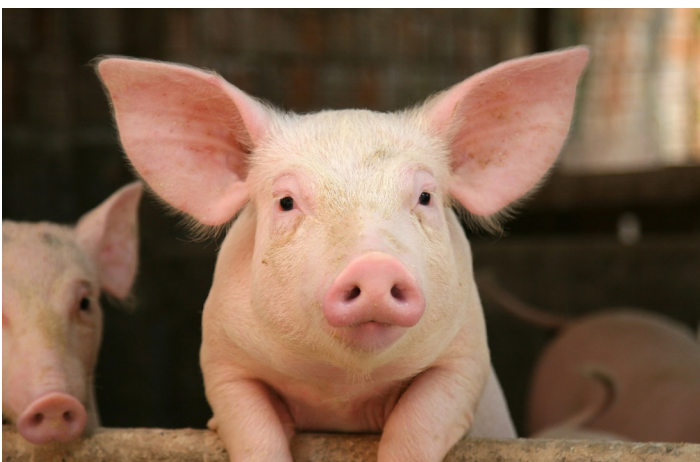
### The Professional Approach to Infection Control through Premise Disinfection & Water Treatment

Bio-Cide International Inc. has invested many years of research in optimizing sanitation solutions for animal facilities. ProOxine® is an outstanding sanitizer specially designed to meet the needs of our customers who desire broad-spectrum biocidal profile. Animal production is an inherently bacteria-rich environment with a processing cycle that is exposed to recontamination. ProOxine® is a chlorine dioxide based product which is recognized as the most potent molecule in rapid elimination of pathogens and the biofilms that protect them. ProOxine® is proven effective at all phases of production and has been demonstrated to be more effective than other common sanitizers including quats, iodophors and chlorine.



With the emergence of highly virulent strains of pathogens, growers are concerned more than ever with getting their stock infected. Reducing the exposure of potential pathogens is an essential element in producing healthy animal stock. A healthy stock results in higher production rates and yields higher feed conversion ratios. Sound breeding management coupled with a good sanitation program, can lessen the chances of disease thereby reducing the reliance on antibiotic treatment.

ProOxine® is a highly refined blend of Stabilized Chlorine Dioxide. ProOxine® destroys microorganisms by chemically oxidizing their molecular components. ProOxine® combined with its activator provides a controlled release of ClO<sub>2</sub>. ProOxine® is also very effective in the control of malodors by eliminating the odor causing bacteria or compound at the surface.



Applications are fully registered with the EPA, USDA and FDA.



Exceptional Chemistry • Extraordinary People • Excellent Service  
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Bio-Cide International is ISO 9001:2008 certified

## BENEFITS

- Ultra high, broad spectrum antimicrobial activity
- Uniquely effective against biofilm
- Effective over a broad pH range (1-10)
- Low corrosion potential at use concentrations
- Resists neutralization due to organic load
- Highly efficient at 2.5 times the concentration of Oxine
- Completely soluble in water
- Does not chlorinate (no THM formation)
- Long lasting bacteriostatic activity
- Excellent deodorant
- No effect on organoleptic properties
- No effect on nutritional quality
- KOSHER certified
- Can be used with automated delivery systems
- Safe for applicators (PPE required)
- No unusual stipulations on storage
- Organic certified



## SPECIFIC PATHOGENS

ProOxine® is an effective virucide against the following pathogens when used at 500 ppm activated use solution with a ten minute contact time:

- Avian Influenza A Virus (H3N2)
- Canine Parvovirus
- Newcastle Disease Virus (NDV)
- Porcine Reproductive and Respiratory Disease Syndrome Virus (PRRS)
- Pseudorabies Virus
- Porcine Epidemic Diarrhea Virus

## PROOXINE® VERSUS CHLORINE

### ProOxine® is Better than Chlorine

- Much greater antimicrobial efficacy
- More organic-load bearing capability
- Does not impart offensive odor or taste to drinking water
- Less corrosive to equipment
- Works in a wider pH range, (hypochlorites typically lose biocidal efficacy above pH 7; whereas Oxine® is effective pH range of 3-10, providing microbial control during pH swings in incoming water)
- Does not create toxic THM's
- Safer for workers and the environment
- 2.6 times more powerful oxidizing capacity than Chlorine
- Requires much lower use solution than hypochlorites
- Removes biofilm more effectively

## COMPARISON WITH OTHER DISINFECTING AGENTS

Biocide	Active Ingredient Concentration (ppm)	P. aeruginosa	S. aureus	S. cerevisiae	E. coli 0157:H7
ProOxine	Chlorine Dioxide 50,000	5	30	30	3
Chlorine	Sodium Hypochlorite 52,500	200	200	400	600
Hydrogen Peroxide	Hydrogen Peroxide 300,000	36,000	68,000	270,000	

Biocide concentration required for > 10<sup>5</sup> reduction in viable cell counts in 60 seconds. (milligrams/liters)

## APPLICATIONS

Provides superior sanitation in these applications:

- Feed Water Contamination Control
- Animal Confinement Areas
- Poultry Growout Houses
- Hatchery Sanitation
- Swine Barns
- Farrowing Houses
- Calf Barns
- Feed Bins
- Boarding Kennels
- Walls, Floors, Ceilings and Drains
- Hard Surface Disinfection
- Animal Hospitals
- Processing Plant Disinfection

## PROPERTIES

Concentration: 5.00 – 5.2% available chlorine dioxide  
 pH: 8.2 – 9.0  
 Solubility in Water: Complete  
 Freezing Point: 25.2° F (-3.78° C)  
 Toxicity: Very Low (EPA CAT III)  
 Non-Flammable  
 Non-Explosive  
 Stable Solution

## WHY SANITIZE?

- Increase Feed Conversion Ratio
- Reduce Mortality & Disease
- Meet Regulatory Requirement
- Reduce Food Borne Illnesses
- Increase shelf life of Product
- Reduce Liability

## DELIVERY EQUIPMENT

Variety of equipment is available for delivery of ProOxine®. Contact your distributor for these options and to request literature on Bio-Cide International's range of equipment that will suit your needs.