

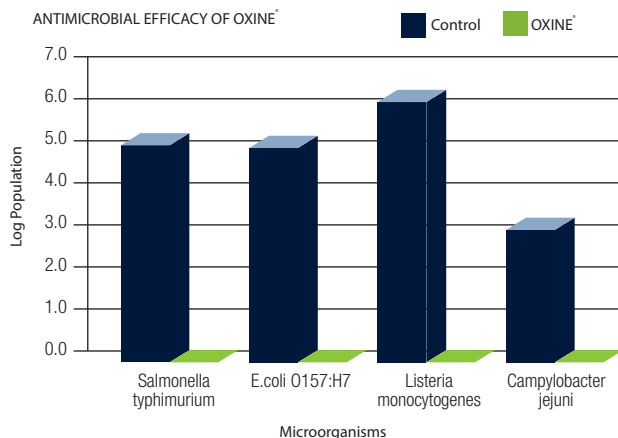
# OXINE®

## For Treatment of Industrial Water Systems

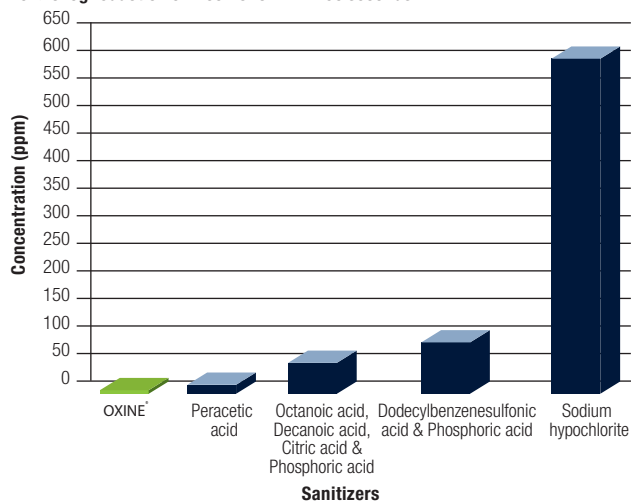


**OXINE® is the most effective, fast-acting, broad-spectrum antimicrobial available.**

OXINE® is a highly refined blend of oxychloro species containing purified sodium chlorite. When activated, chlorine dioxide is produced, greatly enhancing Oxine's antimicrobial activity. Within the water treatment industry, OXINE® displays broad spectrum antimicrobial activity, proven effective against *Legionella*, *E. Coli* O157:H7, *Salmonella*, *Aspergillus*, *Listeria*, *Staphylococcus* and *Pseudomonas*, among others. This product is especially suited for the removal and subsequent control of biofilm. OXINE® is EPA registered and is organically approved through Organic Materials Review Institute (OMRI) and possesses a myriad of other approvals.



CONCENTRATION OF SANITIZERS REQUIRED  
for >5 log reduction of E.coli O157:H7 in 60 seconds



OXINE® has been shown to be more effective than other common sanitizers, including quaternary ammonia, iodophors, Peracetic acid, and sodium hypochlorite (chlorine). OXINE® provides a comprehensive antimicrobial intervention program.



Exceptional Chemistry • Extraordinary People  
[www.bio-cide.com](http://www.bio-cide.com) • 2650 Venture Drive, Norman, OK 73069  
 405.329.5556 • 405.329.2681 fax • 800.323.1398  
 Bio-Cide International is ISO 9001:2008 certified

## B E N E F I T S

- Ultra high antimicrobial activity
- Efficient biofilm control
- Very effective in control of sessile organisms
- Enhanced heat exchange capability
- Low corrosion potential at use concentrations
- Effective over a broad pH range (1-10)
- Reduces total suspended solids
- Highly soluble - Does not disassociate in water
- Selective reactivity-resists neutralization from organic load
- Does not react readily with: Alkanes, Alkenes, Alkynes, Alcohols, Glycols, Aldehydes, Ketones, Ethers, Primary Amines or Acids
- Environmentally safe
- Does not produce chloramines or THMs
- Breaks down into table salt

## A C T I V A T I O N

### Activation

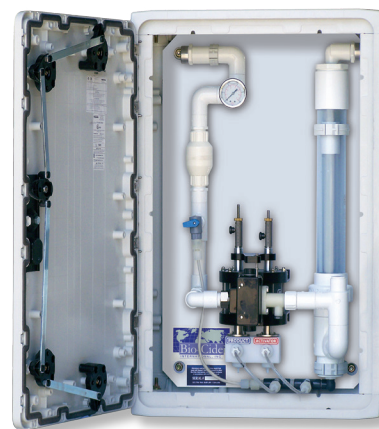
OXINE<sup>®</sup> requires activation for on-site generation of chlorine dioxide. Activation involves lowering the pH of the concentrate with any GRAS acid. Activation may be accomplished manually in low volume as batch applications; or with BCI's hands-free, cost efficient AANE<sup>™</sup> unit, the Wall Mount Activation System<sup>™</sup>, or the on-line activation system OLAS<sup>™</sup>, which combines activation with injection into water streams.



**AANE<sup>™</sup>**



**Wall Mount Activation System<sup>™</sup>**



**OLAS<sup>™</sup>**

## A P P L I C A T I O N S

Closed loop systems / Cooling Towers / Condensers

- Microbial control in sweet water and recirculating cooling water systems
- Water systems disinfectant for biofilm removal and control
- Sanitation of filler head assemblies
- Bacterial, mold and odor control throughout the facility
- Disinfection of condensate pans and drip lines

## P R O D U C T S P E C I F I C A T I O N S

- Recommended dosage of 0.5 - 5 ppm
- Concentration: 2.0 - 2.10% available chlorine dioxide
- Appearance: Colorless liquid
- pH Concentrate: 8.2 - 8.5
- Boiling point: 213° F (100.5°C)
- Melting point: N/A
- Freezing point: 28.9° F (-1.72°C)
- Vapor Pressure: 23.7 mm Hg (25°C)
- Vapor Density: 0.02 kg/m<sup>3</sup>
- Specific Gravity: 1.03 g/ml (20°C)
- Volatiles (by volume): 97% water
- Solubility in water: Complete
- Evaporation rate: Comparable to water
- Very low acute toxicity (EPA Cat III)
- Non-Flammable, Non-Explosive
- Stable Solution
- NFPA Rating: Fire: 0 Health: 1 Reactivity: 1 Special: None