



Technical Data Sheet

PRODUCT OVERVIEW

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 food processing and water treatment industries, Oxine displays broad-spectrum antimicrobial activity, proven effective against *Legionella*, *E. coli* 0157:H7, *Salmonella*, *Aspergillus*, *Listeria*, *Staphylococcus* and *Pseudomonas*, among others. This product is especially suited for the removal and subsequent control of biofilm. EPA registered Oxine is organically approved through OMRI and possesses a myriad of other approvals.

BENEFITS

- Ultra high antimicrobial activity
 - Ultimate biofilm control
 - Effective in the control of sessile organisms
 - Reduces volume requirements of non-oxidizing biocides
- Low corrosion potential at use concentrations
 - Effective over a broad pH range (1-10)
 - Highly soluble
- Selective reactivity
 - Resists neutralization due to organic load
- Environmentally safe
 - Does not produce chloramines
 - Does not chlorinate (no THM formation)
 - Innocuous residual
- Excellent deodorant

APPLICATIONS

Dairy, Brewery, Soft Drink Plants, Food Processing Plants
No-rinse sanitation of all food contact surfaces
CIP sanitizing of processing lines
Water additive to pasteurizers, bottle warmers and coolers
Antimicrobial additive for all compatible conveyor and chain lubricants
Water systems disinfectant for biofilm removal and control
Sanitation of filler head assemblies
Microbial control in sweet water & recirculating cooling water systems
Bacterial, mold and odor control throughout the facility
Sanitation of cold rooms, freezers and spirals
Disinfection of condensate pans and drip lines

Fruit and Vegetable Processing
Flume water treatment for bacteria, slime and odor control
Sanitizing rinse
No-rinse sanitizing of all food contact surfaces

EPA & FDA Approvals

For a comprehensive list of approvals, please contact your Oxine distributor.



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ACTIVATED CONCENTRATE PROPERTIES

Green-Yellow liquid, chlorine-like odor
Solution of oxychloro species, including ClO₂



CONCENTRATE PROPERTIES

Concentration: 2.00 - 2.10% available chlorine dioxide
Appearance: Colorless liquid
Odor: Very faint chlorinous odor
pH Concentrate: of 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/m³
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



OLAS

ACTIVATION

Activation involves lowering the pH of the concentrate with any GRAS acid. Activation may be accomplished manually (low volume or batch applications); for higher volumes, use BCI's inexpensive hands-free activation unit, AANE (Automated, Activation, Non-Electric) system; with BCI's On-line Activation System (OLAS), which combines activation with injection into a water stream on the fly, or by an alternate method recommended by your Oxine distributor.

A sample installation of BCI's AANE is illustrated below (Fig. 1). This unit requires only a 1/2" water supply line with at least 25 PSI of water pressure to mix the correct ratio of acid to Oxine, dilute to stock solution concentration and serve as a reservoir for application to process waters. A simple dosing or water driven proportioning pump is then installed to transfer the activated Oxine solution to makeup water lines or directly into process waters (Fig. 2). Pumps used to dose concentrated activated product should be compatible with acid, and be chlorine resistant. The most serviceable pump materials are listed below:

Non-Wetted Parts

Stainless Steel
Polypropylene
ABS

Elastomers

Teflon®
Afas®, Kelrez®, Chemrez®, Durachlor®
Viton®
PVC (Flexible tubing)

Wetted Parts

Teflon®
PVDF
CPVC
PVC
Kynar®

Concentration of Oxine in process waters can be conveniently monitored using BCI's Oxine's Test Kit. This simple titration test is available through your Oxine distributor.



AANE

OXINE ACTIVATION SYSTEM



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