

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 broadspectrum 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 rand (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.



Bio-Cide International, Inc. 2650 Venture Drive Norman OK 73069

800.323.1398



ACTIVATED CONCETRATE PROPERTIES

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



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



ACTIVATION

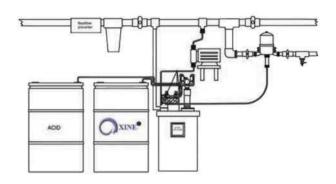
Activation involves lowering the pH of the concentrate with any GRAS acid. Activation may be accomplished manually (low volume or batch applications); for higher volumes, use BCl's inexpensive hands-free activation unit, AANE (Automated, Activation, Non-Electric) system; with BCl's On-line Activation 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	Elastomers	Wetted Parts
Stainless Steel	Teflon®	Teflon®
Polypropylene	Afas®, Kelrez®, Chemrez®, Durachlor®	PVDF
ABS	Viton®	CPVC
	PVC (Flexible tubing)	PVC
	- 100 r - 000000000000000000000000000000	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.

OXINE ACTIVATION SYSTEM



AANE

