Biosperse™ Chlorine Stabilizers

Superior microbiological control for industrial water systems

- Reduced corrosion rates
- Improved microbiological control
- Reduced precipitation of heavy metals
- Reduced halogenated organics
- Reduced operating costs

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Strong bonds. Trusted solutions.

Technology Overview

Strong oxidizing biocides such as sodium hypochlorite and chlorine have been used for decades to control microbiological activity in industrial water systems. Although strong oxidizing biocides effectively control planktonic bacteria, they are unable to penetrate and control established biofilms caused by sessile bacteria. Biofilms are a major cause of microbiologically influenced corrosion (MIC), under deposit corrosion (UDC), and reduced heat transfer efficiency for heat exchangers and other process equipment. Additionally, strong oxidizing biocides are highly reactive with organic and inorganic materials, causing many unwanted side effects, including increased corrosion rates, increased precipitation of heavy metals, reduced equipment performance, increased maintenance costs, increased risk of chlorine off-gassing, and increased levels of adsorbable organic halogens (AOX) and trihalomethanes (THM).

Biosperse™ chlorine stabilizers, a suite of proprietary chemistries, are used in combination with sodium hypochlorite to produce a patented, in-situ stabilized active chlorine solution. The resulting solution effectively controls both planktonic bacteria and biofilm in influent water, process water and cooling tower systems. The in-situ stabilized active chlorine solution is safe and easy to use and does not cause any of the adverse side effects associated with using strong oxidizing biocides.

Automated Dosing and Control

Biosperse chlorine stabilizers are dosed using a proprietary monitoring and control system with state-of-the-art safety and control features that automatically adjust biocidal active production to correct for any variation in sodium hypochlorite quality. Key features include water flow control and safety switches; advanced leak detection and spill containment; and on-line, real-time remote monitoring and troubleshooting.

Application Technology

To obtain optimal results, Biosperse chlorine stabilizers should be applied in an intermittent fashion. To determine the optimal feed location for your system, your Solenis field representative will perform a detailed site survey. The recommended dosage strategy depends upon the type of system, the operating conditions, the nature and extent of microbiological contamination, the types of microorganisms, the presence of process leaks and the amount of reducing agents and process contaminants in the system.

Features and Benefits

FEATURES	BENEFITS
Superior selectivity and persistency via the stabilized active chlorine solution	• Improved microbiological control across a broad range of microorganisms • Improved heat transfer • Improved system cleanliness and performance • Reduced precipitation of heavy metals • Reduced halogenated organics • Eliminates chlorine off-gassing
Operates at lower ORP levels	• Reduced corrosion rates • Extended equipment life • Reduced maintenance costs
Effective control across a broad pH range	• Improved microbiological control • Improved system performance
Automated monitoring and control system	• Reduced variability in product quality • Reduced chlorite handling and storage • Improved worker/workplace safety • Reduced total biocide usage • Reduced environmental impact

More Information

For more information about Biosperse chlorine stabilizers, please contact your local Solenis field representative or visit us online at solenis.com.

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