

Spectrus* BD1550

effective cleaner for biofouled surfaces

- Adjuvant that enhances the effect of oxidizing and non-oxidizing biocides
- Biodegradable; low environmental impact
- Compatible with SUEZ water treatment programs
- Patented

description and use

Spectrus BD1550 from SUEZ is a blend of non-ionic and anionic ingredients patented (US 6,514,458B1) for use in enhancing the removal of biofilms in industrial water systems currently treated with registered biocide products. In cooling systems, biofouling of heat exchange equipment and tower fill reduces heat transfer efficiency and can force unscheduled shutdowns resulting in lost production. Biofilm development may result in microbiologically influenced corrosion (MIC) leading to equipment damage. Additionally, the formation of biofilms in cooling systems provides an ideal environment for the proliferation of Legionella species, the cause of Legionellosis. Consequently, biofouling must be prevented in order for operating units to avoid such events and achieve profit goals. Spectrus BD1550 has the unique property of actually enhancing the removal of biofilms from system surfaces. Many currently available polymers and surfactants do not have this property. This feature provides the benefits of cleaning a fouled system, restoring good heat transfer capacity, and reducing the risk of microbiologically induced corrosion.

Figure 1 presents data representative of Spectrus BD1550's ability to remove biofilm.

Water Technologies & Solutions fact sheet

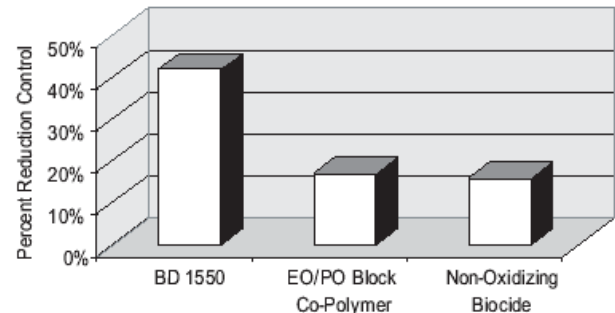


Figure 1: Biofilm Removal using BD1550

Spectrus BD1550 has no biocidal activity of its own, however it acts synergistically with biocides to significantly enhance their activity. This enhancement is evident with both oxidizing (such as chlorine) and nonoxidizing biocides and realized against bacteria in bulk water and in biofilms. Spectrus BD1550 is especially useful when acceptable control of biological activity cannot be achieved with biocides alone; for instance, during process leaks of hydrocarbons or other carbon containing compounds that promote microbial growth and at the same time hinder the action of oxidizing biocides.

treatment and feeding requirements

The typical feed range for Spectrus BD1550 is 10 to 100 ppm (mg/L) in cooling waters. Faster biofilm removal may occur if higher concentrations of the product are used. Typical slug doses will be in the range of 30 to 60 ppm. Actual dosage and frequency of Spectrus BD1550 addition will depend

on a variety of factors such as system cleanliness, microbial nutrient concentration, system retention time, and other system operating characteristics.

Microbiological monitoring of the system by culture or measurement of ATP levels is recommended to evaluate the effectiveness of product dose rates and treatment intervals.

Feed Spectrus BD1550 at a rate sufficient to generate the desired treatment residual in the blowdown of recirculating cooling systems or in the total water flow of once through cooling systems. In the U.S., always use Spectrus BD1550 as part of a biocontrol program that includes an EPA-registered biocide approved for the system being treated. Do not attempt to achieve biological control using Spectrus BD1550 alone. In systems that are halogenated intermittently, begin feeding Spectrus BD1550 just prior to the start of halogenation and continue for the duration of the halogen feed. If the biocide is slug-fed, slug-feed Spectrus BD1550 immediately before the biocide. Calculate slug-fed quantities based on the total system volume.

Spectrus BD1550 has the potential to cause some foaming, especially at higher dosages and in the presence of heavy biofouling. If foaming is a concern, have antifoam available when using this product.

Feed Point

Apply Spectrus BD1550 to a point in the system where turbulence and flow patterns assure good mixing with the water being treated. Avoid application near the feed point for cationic biocides.

Dilution

This blended product can be fed neat from the storage container. If required, the product can be diluted with water.

Compatible Materials

Spectrus BD1550 is compatible with the following materials of construction: Stainless Steel, Copper, Brass, Aluminum, Viton A, Viton Litharge, Natural Rubber, Butyl Lining, PVC, Kynar, Teflon, Nylon, High Density Cross-Linked Polyethylene, Polypropylene, Hypalon.

Materials to Avoid

Low Carbon Steel, Buna N, Buna S, High and Low-Density Non-Crosslinked Polyethylene, Neoprene, Urethane, Polysulfide, Tygon.

general properties

Physical properties of Spectrus BD1550 are shown on the Material Safety Data Sheet, a copy of which is available upon request.

packaging information

Spectrus BD1550 is a liquid and is available in a wide variety of containers and delivery methods. Contact your SUEZ sales representative for more details at www.suezwatertechnologies.com.

storage

Store Spectrus BD1550 at moderate temperatures. Protect from freezing. If frozen, thaw completely and mix thoroughly prior to use.

safety precautions

A Material Safety Data Sheet containing detailed information about this product is available upon request. See Section 8 of the MSDS for recommended personal protective equipment.

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