

# Spectrus\* BD1507

## biodispersant

- Powerful cleaner for biofouled surfaces
- Use with registered biocides
- Non-foaming
- Not a skin sensitizer
- Contains no chlorides

### description and use

Spectrus BD1507 dramatically improves the performance of a biocide program with respect to dispersion of biofilms. Biofilms are highly organized communities of microorganisms that form on wetted and submerged surfaces. Biofilms cause biofouling. In cooling systems, biofouling of heat exchange equipment and tower fill reduces heat transfer efficiency leading to higher energy costs, as well as reduced throughput and extended turnarounds that limit productivity. Biofilms cause MIC (microbiologically influenced corrosion) that damages equipment. Biofilms are also associated with development of pathogens such as Legionella bacteria. Consequently, biofilms must be addressed and biofouling prevented to ensure safe, efficient and profitable operations.

Although Spectrus BD1507 is not a biocide, it facilitates biofilm dispersion (see Figure 1). Spectrus BD1507 is non-foaming. This characteristic and excellent performance make it superior to conventional biodispersants.

Spectrus BD1507 aids the penetration and dispersion of biofilms by registered biocides. This is especially useful when acceptable control of biofouling cannot be achieved with biocides alone. Enhanced biocide performance relative to biofouling may allow bio-control with lower dosages and less frequent dosing.

## Water Technologies & Solutions fact sheet

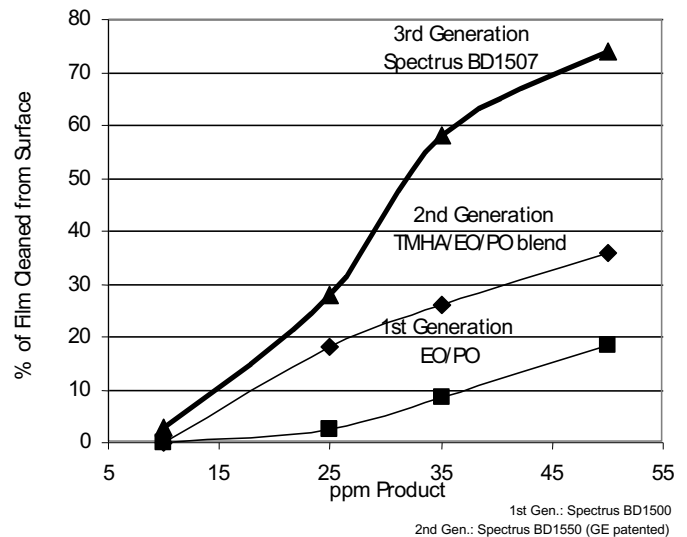


Figure 1: Biofilm Cleaning Activity

Always use Spectrus BD1507 in conjunction with biocides that are EPA registered for a given application. Spectrus BD1507 can be fed with oxidizing biocides (such as chlorine, bromine, or chlorine dioxide) as well as nonoxidizing biocides.

### treatment and feeding requirements

**Typical dosing** – 20 to 50 ppm (mg/l) as product

**Initial dosing** – 30 to 50 ppm (mg/l) – when biofouling is evident

**Maintenance dosing** – 20 to 30 ppm (mg/l)

Calculate the quantity to be fed based on the total system volume.

To ensure disinfection of microbes released into the bulk water from fouled surfaces, prior to dosing with Spectrus BD1507 increase the feed of chlorine gas, bleach or chlorine/bromide as needed to maintain 0.5

to 1.0 ppm (mg/l) Free Residual Halogen as chlorine in the system for at least 1 hour after dosing.

When feeding stabilized halogen donors, increase feed to maintain 2.0 to 3.0 ppm (mg/l) Total Residual Halogen as chlorine for at least 1 hour after dosing.

In systems that that are halogenated intermittently, feed Spectrus BD1507 at the start of halogenation. Adjust halogen feed as needed to maintain the target halogen residual for at least 1 hour after dosing.

If halogen feed rates cannot be adequately increased, feed a fast-acting nonoxidizing biocide (e.g., 60 ppm [mg/l] Spectrus NX1102) prior to addition of Spectrus BD1507.

Actual dosages and frequency of Spectrus BD1507 addition will depend on many factors. These include, system cleanliness, types of microbes, nutrient concentrations, temperature, pH, and hydraulic retention time. Microbiological monitoring is recommended to evaluate product requirements. Consult your SUEZ representative for technical advice on your specific application.

**Feed point** - Shot feed Spectrus BD1507 based on system volume at a point where turbulence and flow patterns ensure good mixing with the water being treated. A brief increase in turbidity may be noted at the feed point.

To minimize potential interaction with anionic polymeric dispersants such as HPS I, make sure the Spectrus BD1507 feed point is widely separated from where dispersants are fed.

**Dilution** - This product is best fed neat (undiluted) from the storage container. If necessary (e.g. for feeding from a day tank), the product can be diluted with water.

**Compatible Materials** - Spectrus BD1507 is compatible with the following materials:

Elastomers: Butyl Lining, Chlorobutyl, Viton A, Buna N, Buna S, Neoprene, EPR, Kalrez, Natural Rubber, Viton Litharge, Tygon

Plastics: HDPE, LDPE, HDCLPE, PVC, Gylon, Kynar, Nylon, Polypropylene, Polysulfone, Teflon, Halar

Metals: 304 and 316 Stainless Steel

Avoid: Aluminum

## general properties

Physical properties of Spectrus BD1507 are shown on the Material Safety Data Sheet, a copy of which is available on request.

## packaging information

Spectrus BD1507 is a liquid and is available in a wide variety of containers and delivery methods. Consult your SUEZ water representative for details.

## storage

Store Spectrus BD1507 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 on request.

## general information

Purchase of Spectrus BD1507 from SUEZ includes a license to practice the processes covered by US Patents pending.

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