



Bioscience, Inc.
Environmental Products & Services
ISO 9001:2015 Certified

MICROCAT[®]-DF

Biocompatible Defoamer for Wastewater Plants

Description

MICROCAT-DF Biocompatible Defoamer is a synthetic biocompatible liquid for controlling biologically generated foams in wastewater plants. It is formulated for aeration tanks and sludge digesters to suppress foam without inhibition of the biomass and other negative side effects associated with conventional defoamers. **MICROCAT – DF** does not contain silicones, mineral oil, nitrogen or phosphorus compounds. As such it is compatible with the use of MICROCAT microbial – enzyme formulations.

Applications

At times anaerobic and aerobic microbial metabolism can result in persistent foams resulting from:

- Filamentous infestation (e.g. Nocardia (Gordonia) sp. and Microthrix sp.)
 - Rapid temperature or pH changes
- Wastewater composition changes and shock loadings
 - Plant startups and restarts

Some foams can at times attain a “structural” character. **MICROCAT-DF** can help, especially when used in conjunction with **MICROCAT – XF** Filament Controller or other **MICROCAT** products for controlling incoming greases and fats in the collection system.



Before



After



Nocardia (Gordonia) sp. @ 400X

Significant cost reductions versus conventional chemical foam treatments are available by combining **MICROCAT – DF** with other **MICROCAT** formulations to create a “green” solution to a foaming problem while also reducing “undesirables” such as Nocardia (Gordonia) sp. that can inhibit settling and cause other operating difficulties.

Product Characteristics

Appearance	Amber, translucent viscous liquid
Contents	Synthetic, 100% active non-settlable organics
Shelf Life	Two Years
Packaging	5/55 gallon (18.9 / 208.2 L) plastic drums, 275 gallon (1.04 m3) totes

Application Programs

In general, **MICROCAT-DF** is metered continuously into the foam source. For anaerobic sludge digestion systems, add the product into the heat exchange loop. For aerobic sludge digestion systems add the product to the liquid surface. Add **MICROCAT - DF** at a rate of 3 to 6 gallons per million gallons of digester volume. For “standing” foams of considerable depth increase the dose initially until the foam layer subsides and then reduce the application rate.

For aerobic wastewater systems add 3-15 ppm based on the forward flow rate. Add to the influent before the splitter box or to the sludge recycle line. If the foam blanket is greater than 3-4 inches, increase the application rate up to as high as 60 ppm until the layer subsides. Dosages as low as 0.5 – 5.0 ppm may control foam after initial foam collapse. Lower dosage slowly to obtain minimum required for control. The product can also be added batch-wise. Your Bioscience, Inc. Technical Representative will provide you with a custom-tailored application program to fit your specific needs.

Application Equipment

Bioscience supplies cost-effective, metering equipment specially designed to ensure the efficacy of your foam control program. Contact your Bioscience, Inc. Technical Representative for a complete site survey and detailed equipment recommendations.

Storage and Handling

Storage	55° - 120° F (13° - 49° C). Store indoors at room temperature.
Handling	No special handling required. Dispose of in accord with all local, state and federal requirements. If accidental skin contact occurs wash affected area with soap and water. Do not ingest. Non-toxic, non-pathogenic, harmless to aquatic life.

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The information contained in this data sheet is a guide to the use of **MICROCAT** products and is based on test and information believed to be reliable. Product content and specifications are subject to change without notice. All information is given to and accepted by user at user's risk and confirmation of its validity and suitability to particular cases should be obtained independently. Bioscience, Inc. makes no guarantee of results and assumes no obligation or liability in connection with the information contained herein. Bioscience, Inc. does not warrant against infringement of, and this data sheet is not to be construed as a license to operate under, any patents.

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