



# Microbe Blends Tackle Wastewater Treatment Problems

Grease and fat accumulation, filamentous infestations (poor settling sludge), ammonia accumulation and odor are common challenges faced by wastewater collection and treatment systems. Bioscience, Inc. has developed a line of microbial products to address these issues. Bioscience's MICROCAT® microbial products are blends of specialized, naturally occurring microbes and other ingredients that work together to solve problems under the conditions common in sewage treatment and collection systems.

■ **MICROCAT-SXM Grease and Fat Treatment Bioformula** is a blend of naturally occurring adapted microorganisms and active enzymes that are specifically designed to control grease and fat buildup in sewage collection systems, lift pump stations and treatment plants. The blend is applied directly to the affected area. It is available in dry form in bulk or water-soluble packets.

■ **MICROCAT-XF Natural Filamentous Growth Inhibitor** is a non-toxic, non-pathogenic, blend of preselected adapted



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microorganisms and ancillary enzymes for use in municipal wastewater plants where sludge bulking caused by filamentous organisms is a problem. This formulation is designed to attack and out-compete filamentous microbe populations, improve sludge settling and reduce effluent suspended solids. The blend contains enzymes and other ingredients selected to destabilize many filamentous forms.



■ **MICROCAT-GEL Liquid Drain, Trap and Septic Tank Cleaner** is a liquid blend of natural bacteria, enzymes and surfactants for use in maintaining, cleaning and deodorizing. It is formulated for removal of fats, oils, greases, starches and proteins which accumulate in toilets, drains, traps, plumbing systems and septic tanks.

■ **MICROCAT-XNL Ammonia Oxidizing Bioformula** combines the capability of several ammonia-oxidizing microbial strains for seeding nitrifying systems and for enhancing performance under toxic, inhibitory or cold weather conditions. It can speed start up, increase consistency of ongoing nitrification, and improve overall system performance.

This formulation is a non-refrigerated liquid suspension of preselected, adapted nitrosomonas and nitrobacter microbial strains. These bacteria perform the

nitrification process, the oxidation of ammonia to nitrite and then to nitrate. It is also available as a refrigerated slurry concentrate (MICROCAT-XNC).

■ **MICROCAT-ECL Natural Enzyme Cleaner/Deodorizer** is a liquid blend of natural enzymes and surfactants (no microbes) for use in cleaning and deodorizing. It is non-toxic, non-pathogenic and contains food grade ingredients. It is used in a wide variety of food processing and wastewater treatment operations such as sludge handling, composting and primary treatment. Its blend of enzymes and surfactants emulsify, remove and break down natural odor-causing materials to reduce foul odors. The blend is particularly suited for facultative lagoons and for sewer and lift station cleaning.



■ **MICROCAT-ANL Odor Control Bioformula** is a non-viscous liquid used to reduce odors caused by sulfur bearing compounds, especially hydrogen sulfide. Such odors arise in sewer lines, sludge handling, composting and wastewater treatment. Its specialized microbes reduce sulfides under aerobic, anaerobic or anoxic conditions to elemental sulfur, which is occluded by the cells thus suppressing odors. It is suited to applications in sewer lines, primary treatment systems, and sludge handling systems.