

# Pump Station & Sewer Line Treatment Microbes

## LCO 2009

### Grease and Odor Treatment For Pump Stations and Sewer Lines



**IFM's LCO 2009** with *BioS 3112* represents an advanced, unique biological treatment for fats, oils, greases and odors in collection system pump stations and adjacent sewer lines. *BioS 3112* is a patented *Bacillus* strain that gives **LCO 2009** a novel, stable, spore-forming bacterium that degrades the recalcitrant long-chain fatty acids associated with grease. The introduction of *BioS 3112* into a microbial blend that also performs well on proteins, lipids and carbohydrates delivers a superior biological consortium for FOG and odors in collection system pump stations and adjacent sewer lines that are characterized by infrequent pumping and long detention times.

The manufacturer of **LCO 2009** is a leader in the isolation and selection of novel microbial consortia that degrade recalcitrant organics such as grease. Microorganisms are selected from the environment, from a stock culture collection of 25,000 characterized strains and from the million worldwide soil samples held by the manufacturer.

#### Benefits

- **LCO 2009** with *BioS 3112* can minimize costly blockages and emergency cleaning and jetting when used as part of a preventative maintenance program. The effectiveness of the product can be leveraged in certain applications when combined with **FOG 2000** in *SoluPaks* or the patented *BIO-SOCK®*.
- Sites associated with high grease loads and anaerobic conditions prove the most difficult to treat. Formulated with the highest bacterial counts in the industry, the **LCO 2009** with *BioS 3112* microbial blend produces lipase, amylase, protease and other key enzymes needed to metabolize grease. A respiratory modifier simultaneously prevents the formation of H<sub>2</sub>S by sulfate-reducing bacteria while enabling high rates of grease degradation.
- *BioS* incorporates a stable, spore-forming strain that specifically degrades the recalcitrant portions of the grease molecule, the long-chain fatty acids that are known to be persistent in the environment and cause the majority of maintenance and treatment problems.
- **LCO 2009** with *BioS 3112*'s microbial blend degrades and digests grease, short- and long-chain fatty acids, proteins, lipids and carbohydrates removing the cause of FOG and odor problems.
- The partial breakdown of grease causes pH to decrease, causing an environment that is inhibitory to most bacteria. *BioS 3112* is active at these low pH's. Furthermore, the addition of **LCO 2009** alleviates low pH problems by breaking down these fatty acids, thus maintaining an environment more amenable to active microbial degradation.
- **LCO 2009** with *BioS 3112* is very effective in low Dissolved Oxygen situations.



Nonfood Compounds  
Program Listed Category L2  
Registration# 140466

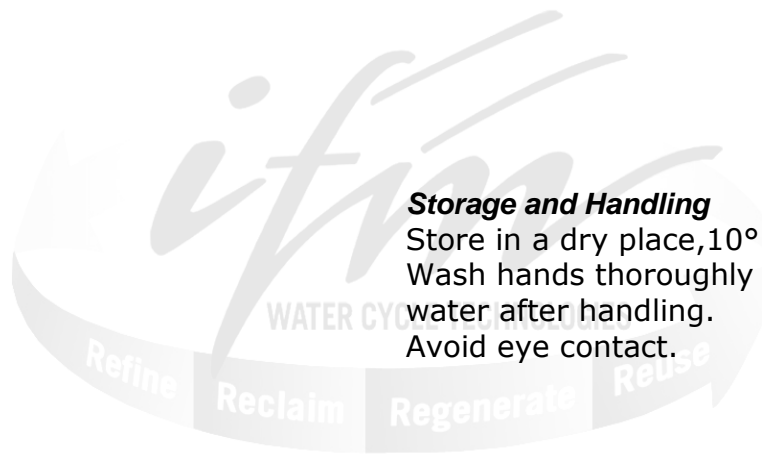
- **LCO 2009 with BioS 3112** is an environmentally friendly formulation that won't harm pumps or mechanical systems.
- With continued use, **LCO 2009 with BioS 3112** can reduce line maintenance costs, lower grease disposal costs and reduce capital equipment expenditures.
- **LCO 2009 with Bios 3112** can be applied manually or by using an automatic dosing system.

**Product Characteristics**

Bacteria Count 14.5 x 10<sup>7</sup> CFU/ml  
(550 Billion/gal)  
Stability 10°- 45°C (50° - 113°F)  
pH range 8.1 - 8.5

**Available Packaging**

- 5 gallon pail
- 55 gallon drum



**Storage and Handling**

Store in a dry place, 10° - 45°C (50° - 113°F)  
Wash hands thoroughly with warm, soapy water after handling.  
Avoid eye contact.

**Optimum Conditions for Use**

Bacteria in IFM's **IDC 1000** perform within a pH range of 4.5 - 8.5 with optimum typically near 7.0. Temperature affects the activity of the working solution with bacterial action increasing with rising temperatures up to 45°C (113°F). Reduced activity may be expected below 10°C (50°F).

Industrial Fluid Management  
IFM, Inc.  
2926 US Highway 6  
McClure, OH 43534

[www.ifmenviro.com](http://www.ifmenviro.com)

Customer Service Orders:  
Phone: 419-748-7438

Fax Orders:  
419-748-7460

E-mail Orders:  
ifminfo@ifmenviro.com



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