



How do I add bioaugmentation products to help degrade oils and grease?

Lift Stations, Aeration basins and Digestors may have grease. Digestors commonly end up with build-ups of grease due to solids and floating grease from the primary being sent to the digester. Grease is one waste that the sewer system cannot handle and therefore needs to be kept out of the system, but most often is not.

An additional concern is that since the government raised the temperature required by restaurants and food establishments at the dish machines from 180° F to ~210° F, grease traps are not working as designed and grease that used to be trapped onsite is now washing through the lines until the temperature of the water cools down and then hardens later on.

This usually happens somewhere in the lines or in the lift station. Biological additives are a safe, natural, environmental friendly way to help assist in the cleaning up of a lift station, but they are not miracle workers. There is a limit to what they can do, how they do it and when they will work. Bacteria can naturally degrade the fats, oils and grease, as well as any other organic materials that enter a lift station or pipe. They actually consume these as a food source, as opposed to traditional methods of surfactants, enzymes or chemicals that may have eliminated the grease in the lift station, but just transferred them down the pipe and eventually into the wastewater treatment plant and can cause upset conditions.

Biological products cannot in a realistic time degrade some of the solids such as plastics, floatables, etc. that wind up in the lift station or the treatment plant. Some of these eventually build up and must be physically removed.

Bacteria not only clean the lift stations if properly applied, they can help clean up the lines and can lighten the load at the treatment plant and reduce solids or help with BOD removal and TSS loading.

Again, it is all in the program addition; conditions such as flow, temperature and loading impact whether a program will impact just the lift station, the pipes or the treatment plant alone. It is always a time and numbers game in wastewater biodegradation. With bioaugmentation, you are assisting and supplementing the numbers of bacteria. Depending upon where you add the bacteria, especially the further upstream you add them, the more time you are allowing the bacteria to degrade the organics. Please let us know if you have issues with grease and oils.

Thanks, Tracy Finnegan – President  
Sincerely, Bryan Cook – Bioengineering Specialist  
[wastewater@environmentalLeverage.com](mailto:wastewater@environmentalLeverage.com) or [bryanenlev@aol.com](mailto:bryanenlev@aol.com)



Turning Liabilities Into Leverage!™

# MicroBlock™

## FOG / Odor Control & BOD / TSS Reduction

### Product Bulletin *Problems with High Grease, Fats & Oils*

*Environmental Leverage has Lab Analysis Service Available*

MicroBlock™ is a solid, bacterial laden, slow release bio block for use in degrading organics. The naturally occurring bacteria contained in the block will reduce odor, sludge, fats, oils and grease buildup.

This bioaugmentation product is safe; naturally occurring bacteria are present in high numbers to handle difficult organic problems. The unique block will gradually dissolve over a 30-90 day period which allows for continuous treatment and degradation of waste.

Biological products offer a more efficient alternative to chemicals. They actually degrade the grease and organics at the source. The MicroBlock™ is suspended below the water level and provides slow, continuous release for the bacteria.

### Application Sewer, Lift Stations & Wet Wells for FOG Control

#### **DOSAGE RATE GUIDELINES**

2 - lb. MicroBlock™	35-60 Days	flows less than 50,000 gpd
5 - lb. MicroBlock™	45-75 Days	flows 50,000 -100,000 gpd
10 - lb. MicroBlock™	60-90 Days	flows >100,000 gpd

### Product Advantages

- \* Allows for 24 hour continuous treatment of waste, not just periodic dosage
- \* Greatly reduces labor time needed for dosage maintenance
- \* Reduces hydrogen sulfide & sludge buildup
  - \* Easy to use
  - \* Significantly reduces malodors
- \* Cost effective & reduces the need for pump-outs and dredging
  - \* Breaks down fat & grease buildup (FOG)
- \* Eliminates need for metering pump - no initial or maintenance cost
  - \* Eliminates need for personnel to dose other types of treatments daily or weekly
- \* Automates septic and grease trap maintenance program



### Applications of Use

- LIFT STATIONS
- WET WELLS
- SUMP PITS
- DIGESTERS
- SLUDGE TANKS
- SEWER MAINS
- Pre-TREATMENT
- LATERALS
- GREASE TRAPS
- AERATION SBR'S
- LAGOON'S
- TRICKLING FILTERS
- DRAIN LINES

### Packaging of Product

- 2 lb. / 4 per Case
- 5 lb. / 4 per Case
- 10 lb. / 4 per Case



### Degrades (FOG)

- Fats, Oils & Grease
- Starches
- Protein
- Malodors
- Animal Fat
- Organics
- Triglycerides
- Foaming
- Surfactants
- Soaps
- Reduces BOD

### **Environmental Leverage® Inc.**

1454 Louis Bork Drive  
Batavia, IL 60510

admin@environmentalLeverage.com  
630-906-9791 fax 630-906-9792  
www.EnvironmentalLeverage.com





Turning Liabilities Into Leverage!

# MicroBlock™

## FOG / Odor Control & BOD / TSS Reduction

### Product Bulletin Problems with High Grease, Fats & Oils

*Environmental Leverage has Lab Analysis Service Available*

MicroBlock™ bio solid gives round the clock waste degradation treatment with a simple, easy to use system. Simply suspend the MicroBlock™ into the treatment area, hanging the MicroBlock™ ½ the way into the lift station liquid, wet well, grease trap or pre-treatment site. The block will dissolve over a 30-90 day period, depending on size and flow rates in a typical lift stations or wet wells, providing optimal efficiency and treatment.



**2 lb. MicroBlock  
Start taking the  
Grease & Scum  
Out of your system  
Today!**

#### Degrades (FOG)

- Fats, Oils & Grease
- Starches
- Protein
- Malodors
- Animal Fat
- Organics
- Triglycerides
- Foaming
- Surfactants
- Soaps
- Reduces BOD



#### Typical Properties of Product

- Appearance.....medium green
- Fragrance.....mild-earthy
- Form.....block
- pH.....7.8-8.5
- Shelf-Life.....2 years/u.o.c.
- Flash Point.....none

#### Performance Properties

- Effective pH range.....5.2 - 9.5
- Effective Temperature Ran.....40 - 120°F

#### Storage & Handling

- Storage.....Store in a cool, dry place. Do Not Freeze
- Container.....Keep box closed & blocks in plastic bag. Seal end of bag to keep blocks away from air flow.

Handling.....Wash hands thoroughly with warm, soapy water

#### Bacterial Count

- MicroBlock™.....4 Billion CFU's per gram
- Block Contents include..... 4 strains of Bacillus & Nutrient Package

**\*Ask about the impact of supplementing N and P.**

#### **Environmental Leverage® Inc.**

1454 Louis Bork Drive  
Batavia, IL 60510

admin@environmentalLeverage.com  
630-906-9791 fax 630-906-9792  
www.EnvironmentalLeverage.com





Turning Liabilities Into Leverage!

# MicroClear® 207

## High Grease, FOG Control and BOD Reduction

### Product Bulletin

*Environmental Leverage has Lab Analysis Service Available*

MicroClear® 207 can be used in aeration basins or existing system to supplement your existing biomass or into lift stations to control High Grease situation. MicroClear® 207 is a high potency, bacteria-laden, powdered formulation, for use in degrading many types of waste. MicroClear® 207 contains a specially formulated, proprietary blend of microorganisms, micro/macronutrients, and surface tension suppressants/penetrants.

Because of the diversity of the microorganism systems incorporated into this product it is specifically developed for use in situations where there is a particular high impact from fats, oils and grease (FOG). The safe, naturally occurring bacteria are present in high numbers to handle difficult organic problems and are very economical to use.

### Enzymatic Activity

Cellulase (CAU).....	Units/Gram: 150 Min.
Protease (Casein Digesting).....	Units/Gram: 35,000 Min.
Amylase (Modified Wohlgemuth).....	Units/Gram: 55,000-80,000
Lipase (USP).....	Units/Gram: 400

### Application Instructions for Sewer & Lift Stations

Flow Rate	Initial Dosage	Maintenance**
Up to 25,000gpd	1lb. per week	½ lb. per week
Up to 50,000gpd	1lb. 2x week	1 lb. per week
Up to 100,000gpd	1lb. every other day	1 lb. 2x week
Up to 250,000gpd	1lb. per day	1 lb. 3x week



1-lb. Water Soluble Bio-Pouch



### Degrades

- Fats, Oils & Grease (FOG)
- Organics
- Starches
- Protein
- Malodors
- Animal Fat
- Triglycerides
- Foaming
- Surfactants
- Soaps

### Product Advantages

- Can be used in WW Treatment Systems & Liftstations to reduce BOD/TSS
- Greatly reduces labor time
- Enhances BOD/COD removal
- Reduces H2S Production
- Reduces sludge buildup
- Cost effective/Easy to use
- Changes biomass dynamics
- No special equipment needed
- Increases system efficiency
- Breaks down fat & grease (FOG) buildup
- Eliminates malodors at their source
- Contains facultative anaerobes
- Contains no chemicals
- Degrades a wide range of complex organic compounds

### Applications of Use

- LIFT STATIONS
- WET WELLS
- SUMP PITS
- AERATION BASINS
- OXIDATION TANKS & DITCHES
- RBC'S & SBR'S
- CLARIFIERS
- DIGESTERS
- SLUDGE TANKS
- SEWER MAINS
- LATERALS
- GREASE TRAPS
- AERATION SBR'S
- LAGOON'S
- TRICKLING FILTERS
- IMHOFF TANKS
- DRAIN LINES

### Packaging of Product

- MicroClear® 207 comes in
- 1-lb. water soluble Bio-pouches.
- Packaged in 25-lb. Plastic Pails.
- Bulk or Smaller pouch packaging upon request.

### Environmental Leverage® Inc.

1454 Louis Bork Dr.  
Batavia, IL 60510

admin@environmentalleverage.com

630-906-9791 fax 630-906-9792

www.EnvironmentalLeverage.com





Turning Liabilities Into Leverage!

# MicroClear® 207

## High Grease, FOG Control and BOD Reduction

### Product Bulletin

*Environmental Leverage has Lab Analysis Service Available*



1-lb. Water Soluble Bio-Pouch

### Degrades

- Fats, Oils & Grease (FOG)
- Organics
- Starches
- Protein
- Malodors
- Animal Fat
- Triglycerides
- Foaming
- Surfactants
- Soaps

### Typical Properties of Product

- Appearance.....light tan
- Fragrance.....mild-earthly
- Form.....powder
- pH.....6.8-8.5
- Shelf-Life.....2 years/u.o.c.
- Flash Point.....none



### Performance Properties

- Effective pH range.....5.2 - 9.5
- Effective Temperature Range.....35 - 130°F
- Bacterial Enzyme Production.....Protease, Lipase, Amylase, Urease, Cellulase



### Storage & Handling

- Storage.....Store in a cool, dry place. Do Not Freeze
- Container.....Keep lid closed on Plastic Pail. Do not store water soluble pouches out of plastic container.

- Handling.....Wash hands thoroughly with warm, soapy water

### Bacterial Count

- MicroClear® 207.....>1x10<sup>9</sup> (Billion per gram)



### Environmental Leverage® Inc.

1454 Louis Bork Dr.  
Batavia, IL 60510

admin@environmentalLeverage.com

630-906-9791 fax 630-906-9792

www.EnvironmentalLeverage.com

