

Turning Liabilities Into Leverage!"



<u>Degrades</u>

(FOG)

Fats, Oils & Grease

Organics

Starches

Protein

Malodors

Animal Fat

Triglycerides

Foaming

Surfactants

Soaps

Environmental Leverage® Inc.

812 Dogwood Dr. Suite A
North Aurora, IL 60542
admin@environmentalLeverage.com
630-906-9791 fax 630-906-9792
www.EnvironmentalLeverage.com

MicroBlock™

For Bioaugmentation & FOG Control

Product Bulletin

Environmental Leverage has Lab Analysis Service Available

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

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

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

Packaging of Product

2 lb. / 4 per Case 5 lb. / 4 per Case 10 lb. / 4 per Case 1 lb. / 16 per Case



Applications of Use

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





Turning Liabilities Into Leverage!

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



I lb. MicroBlock Perfect size for small septic tanks or to fit into a drain.

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MicroBlock™ 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. MicroBlock™ can also be used upstream to start reducing BOD / TSS prior to the treatment system.



Typical Properties of Product

Appearance	medium greer
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	2 - 9.5
Effective Temperature	Ran40	- 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	y 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.





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Controls

Odors Hydrogen sulfide, Mercaptans, and Volatile Organic Acids Corrosion

Degrades

Fats. Oils & Grease **Starches** Protein, Animal Fat **Organics Trialycerides** Surfactants, Soaps

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MicroClear® BioNiteTM

Odor Suppressant and Biological Organic Degradation

Product Bulletin

Environmental Leverage has Lab Analysis Service Available

MicroClear® BioNite™ is a proprietary formulation of ingredients containing a nitrate-based Electron Acceptor for Control of Odors. This product can be used for controlling odorous and potentially dangerous chemicals such as hydrogen sulfide, mercaptans, and volatile organic acids. MicroClear® BioNite™ helps eliminate the odor, corrosion and safety problems associated with hydrogen sulfide in sewage as well as prevent the formation of hydrogen sulfide.

MicroClear® BioNite™ a high potency, bacteria-laden, powdered formulation, for use in degrading many types of waste. MicroClear® BioNite™ contains a specially formulated, proprietary blend of microorganisms, micro/macronutrients, alternate oxygen source 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 odors as well as fats, oils and grease.

Our safe, naturally occurring bacteria are present in high numbers to handle difficult organic problems, suppress odors and are very economical to use. This product can be used in the treatment of liquid & solid organic waste.

MicroClear® BioNite™ contains facultative anaerobes, as well as an alternate oxygen source by providing an abundance of oxygen (electron acceptor) for metabolism to occur. This formulation bio-stimulant is nonhazardous and completely biodegradable. Safe, cost effective, easy-to-handle method of odor control with no hazardous byoroducts.

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	1-lb. per week	½ lb. per weel
Up to 50,000gpd	1-lb. 2x week	1-lb. per week
Up to 100,000gpd	1-lb. every other day	1-lb. 2x week
Up to 250,000gpd	1-lb. per day	1-lb. 3x week

***The required dose ranges from 4 to 15 lbs. of calcium nitrate per pound of sulfide present

Product Advantages

Eliminates malodors at their source Contains Alternate Oxygen Source Reduces Corrosion Greatly reduces labor time Enhances BOD/COD removal Reduces hydrogen sulfide Reduces sludge buildup Cost effective/Easy to use Changes biomass dynamics No special equipment needed Increases system efficiency Breaks down fat & grease buildup Contains facultative aerobes Degrades a wide range of complex organic compounds



Applications of Use

LIFT STATIONS WET WELLS SUMP PITS SLUDGE TANKS SEWER MAINS GREASE TRAPS **LAGOON'S** WWTreatment Systems TRICKLING FILTERS **DRAIN LINES PONDS**

Packaging of Product

MicroClear® BioNite™ comes in 1-lb. water soluble Bio-pouches. Packaged in 25-lb. Plastic Pails. Bulk packaging upon request.



MicroClear® BioNiteTM

Odor Suppressant and Biological Organic Degradation

Product Bulletin

Environmental Leverage has Lab Analysis Service Available

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Controls

Odors
Hydrogen sulfide,
Mercaptans, and Volatile
Organic Acids
Corrosion

Degrades

Fats, Oils & Grease Starches Protein, Animal Fat Organics Triglycerides Surfactants, Soaps

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Typical Properties of Product

Appearance	light tan
Fragrance	mild-earthy
Form	powder
pH	6.8-8.5
Shelf-Life	1 year/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	9

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 pla	stic container.

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

Bacterial Count

MicroClear[®] BioNite[™].....>1x10⁹ (Billion per gram)







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Degrades

Fats. Oils & Grease (FOG) **Starches** Protein **Malodors** Animal Fat **Triglycerides** Foaming **Surfactants** Soaps

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MicroClear® 207

High Impact Grease Digestor

Product Bulletin

Environmental Leverage has Lab Analysis Service Available

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. 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

Product Advantages

Can be used in WW Treatment Systems & Liftstations to remove BOD 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

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.

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**





MicroClear® 207

High Impact Grease Digestor

Product Bulletin

Environmental Leverage has Lab Analysis Service Available





Typical Properties of Product

Appearance.....light tan

Fragrance.....mild-earthy

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

<u>Degrades</u>

Fats, Oils & Grease
Starches
Protein
Malodors
Animal Fat
Triglycerides
Foaming
Surfactants
Soaps

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Bacterial Count

MicroClear® 207....>1x10⁹ (Billion per gram)



