MicroBlock™
For Bioaugmentation
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 and grease buildup.

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

**DOSAGE RATE GUIDELINES**

<table>
<thead>
<tr>
<th>Dosage</th>
<th>Duration</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 lb. MicroBlock™</td>
<td>35-60 Days</td>
<td>flows less than 50,000 gpd</td>
</tr>
<tr>
<td>5 lb. MicroBlock™</td>
<td>45-75 Days</td>
<td>flows 50,000-100,000 gpd</td>
</tr>
<tr>
<td>10 lb. MicroBlock™</td>
<td>60-90 Days</td>
<td>flows &gt;100,000 gpd</td>
</tr>
</tbody>
</table>

### 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
* 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
- LATERALS
- GREASE TRAPS
- AERATION SBR'S
- LAGOON'S
- TRICKLING FILTERS
- DRAIN LINES

### Packaging of Product

<table>
<thead>
<tr>
<th>Weight</th>
<th>Packages per Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 lb.</td>
<td>4 per Case</td>
</tr>
<tr>
<td>5 lb.</td>
<td>4 per Case</td>
</tr>
<tr>
<td>10 lb.</td>
<td>4 per Case</td>
</tr>
</tbody>
</table>

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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™ 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.

**Typical Properties of Product**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>medium green</td>
</tr>
<tr>
<td>Fragrance</td>
<td>mild-earthy</td>
</tr>
<tr>
<td>Form</td>
<td>block</td>
</tr>
<tr>
<td>pH</td>
<td>7.8 - 8.5</td>
</tr>
<tr>
<td>Shelf-Life</td>
<td>2 years/u.o.c.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>none</td>
</tr>
</tbody>
</table>

**Performance Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective pH range</td>
<td>5.2 - 9.5</td>
</tr>
<tr>
<td>Effective Temperature Range</td>
<td>40 - 120°F</td>
</tr>
</tbody>
</table>

**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.*
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 (FOG) 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 for reducing BOD.

**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**

<table>
<thead>
<tr>
<th>Flow Rate</th>
<th>Initial Dosage</th>
<th>Maintenance**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 25,000 gpd</td>
<td>1 lb. per week</td>
<td>½ lb. per week</td>
</tr>
<tr>
<td>Up to 50,000 gpd</td>
<td>1 lb. 2x week</td>
<td>1 lb. per week</td>
</tr>
<tr>
<td>Up to 100,000 gpd</td>
<td>1 lb. every other day</td>
<td>1 lb. 2x week</td>
</tr>
<tr>
<td>Up to 250,000 gpd</td>
<td>1 lb. per day</td>
<td>1 lb. 3x week</td>
</tr>
</tbody>
</table>

**Product Advantages**

- 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
- 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**
- **OXIDATION TANKS**
- **RBC’S**
- **CLARIFIERS**
- **DIGESTERS**
- **SLUDGE TANKS**
- **SEWER MAINS**
- **LATERALS**
- **GREASE TRAPS**
- **AERATION BASINS and SBR’S**
- **LAGOON’S**
- **TRICKLING FILTERS**
- **IMHOFF TANKS**
- **DRAIN LINES**

**Packaging of Product**


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MicroClear® 207
High Impact Grease Digester & FOG removal
Product Bulletin

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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

Bacterial Count
MicroClear® 207.....................>1x10⁹ (Billion per gram)
MicroClear® BioNite™

Odor Suppressant and Biological Organic Degradation

Product Bulletin

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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 non-hazardous and completely biodegradable. Safe, cost effective, easy-to-handle method of odor control with no hazardous byproducts.

**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    1-3 lb. per week        1½ lb. per week
Up to 50,000gpd    2 lb. 2x week           2 lb. per week
Up to 100,000gpd   2 lb. every other day   2 lb. 2x week
Up to 250,000gpd   2 lb. per day           2 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
TRICKLING FILTERS
DRAIN LINES
PONDS

**Packaging of Product**


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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Hydrogen sulfide, Mercaptans, and Volatile Organic Acids
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Degrades
Fats, Oils & Grease
Starches
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Triglycerides
Surfactants, Soaps

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
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Bacterial Enzyme Production........Protease,
Lipase, Amylase, Urease, Cellulase

Storage & Handling
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