

# Advanced BioTech

Developer of MultiFIX™ and BioWorld Products™

## Wastewater Treatment Products

- Treatment Systems will be more efficient
- Lower BOD and TSS levels
- Accelerate the degradation of greases, fats and wastes
- Eliminate Odors



## Now Available from BioWorld Products

- **Bioremediation Products**
- **Algae Treatment Products**
- **Odor Control Products**
- **Agricultural – Soil Enhancement**

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## BioWorld Advantages

The BioWorld Wastewater Treatment is a natural blend of Bioaugmentation - specific strains of microbes used in combination with specialized Bioenhancement - liquid nutrients, enzymes, and odor neutralizing compounds. The BioWorld Treatment actually breaks down waste into its elemental form while eliminating offensive odors at their source.



## What it is

Various blends of Bioaugmentation and Bioenhancement to work on many types of waste including:

- Wastewater (BOD, solids, sludge, etc.)
- Fats, oils, grease, sludge, solids
- Sulfides in wastewater
- Composting organic materials
- Fiber – pulp and paper wastewater
- Petrochemicals – (see list)

## What it Does

We utilize application methods that are simple, yet effective and require minimal upkeep, allowing maintenance personnel freedom to accomplish other tasks.

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## Where to use

BioWorld is easy to use, environmentally safe, and will actually save you money long term.

- Industrial, Government Facilities
- Food Processors
- Factories
- Septic tanks

BioWorld Wastewater & Odor Treatment uses a unique combination of bioenhancement compounds and mature strains of selected, naturally occurring microorganisms for the complete treatment of numerous waste and odor challenges. BioWorld breaks down waste into environmentally safe compounds while reducing odors in the process. The special Liquid Optimizer formulations maximize the ability of the microbes to reproduce and thrive in the waste system.

General Blend Microbes consist of various bacillus and other digestive strains for organic waste degradation. BioWorld Wastewater & Odor Treatment is non-hazardous, non-toxic, non-corrosive, non-flammable, and non-pathogenic.

## Liquid Optimizer

#35014 – 1 gallon BioWorld Liquid Optimizer

#35064 – 6 gallon BioWorld Liquid Optimizer

#35250 – 250 gallon BioWorld Liquid Optimizer

## Liquid Optimizer Plus

#55014 – 1 gallon BioWorld Liquid Optimizer Plus

#55064 – 6 gallon BioWorld Liquid Optimizer Plus

#55250 – 250 gallon BioWorld Liquid Optimizer Plus



## General Blend Microbes

#36086—½ pound General Blend Microbes

#36055—2½ pounds General Blend Microbes

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## **Composition and Physical Properties**

Liquid: Bioenhancement Compounds, Vitamins, Minerals, Amino Acids, Polysaccharides, Esters, Alcohols, Oils, Proteins, Natural Liquid Enzymes, Organic Surfactants, Odor Neutralizing Compounds.

pH: 5.5 – 6.5

Boiling Point: 212°F/100°C

Freezing Point: 32°F / 0°C

Solubility in Water: 100%

Specific Gravity: 1.0028

Appearance & Odor: Blue-Green; Floral Odor

Dry: Selected bacillus and other digestive strains, natural enzymes on a bran carrier

Concentration: Maximum viable CFU/gram, strain and type dependent

Form: Free Flowing Powder

Color:

Light

Brown

Odor:

Yeast Like

pH:

Neutral

Effective pH Range: 5-9

Effective Temperature: 50 – 110°F

Store in a cool dry place and avoid freezing. Apply to wastewater containing grease, fats, manure, sludge, proteins, starches, sugars, BOD/TSS and other organic matter. Use at food processors, dairies, hog and poultry farms, slaughter houses, industrial facilities, municipal plants, hotels, restaurants, lift stations and grease traps.

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## Meat Packing and Slaughter House Wastewater Pond



20 foot deep pond was covered by grease and fat that was 6 feet thick on the inlet and 3 feet thick on the outlet end to an alfalfa field. Products from another company were applied for several years without results



BioWorld Wastewater Treatment Products were applied every week for 8 weeks.



The thick covering of grease and fats beginning to break up.



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During wash down of the facility, tanks of blood are cleaned and the residues sent to the pond through a pipeline system.



Pond inlet shows red blood being degraded as fast as it is introduced. White foam is from microbial respiration.



U.S.D.A. inspection was a few weeks away. An agitator was used to pulverize the floating islands of grease and fats.



The agitator in action to pulverize the floating islands of grease and fats.

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Close up of the pulverized grease and fats allow for more surface area and faster degradation by the BioWorld Treatment Technology.



The pond had some sludge in the bottom from manure and other waste. BioWorld Microbes degrading the sludge.



Plant Maintenance staff reviewing the BioWorld Treatment Technology in action.



BioWorld Microbes producing odor free gases – primarily CO<sub>2</sub>.

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Most of the pond surface is clear. The thick grease and fat covering is safely degraded. The fields where the water was applied were cleared of grease buildup and no more odors.

BioWorld Products Used:

55064 BioWorld Liquid Optimizer Plus

36086 BioWorld General Blend Microbes