



ADVANCED BIOLOGICAL POWDER FORMULATIONS

High Strength Powders

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multi-purpose powdered products with varying bacterial counts designed as effective, ready-to-use treatments to manage degradation of different wastes within a variety of industries

overview

Many industries are facing increased environmental regulations regarding treatment of their organic wastes. Bio-augmentation (the use of added bacteria to naturally degrade waste) is a safe, effective, **eco-friendly** alternative treatment method compared to the more conventional chemical methods. The industries affected by the ever tightening regulations include, but are not limited to, food processing, industrial, municipal, pulp and paper, aquaculture and farming.

Our **High Strength Powders** are a versatile, multi-strain range of powder formulations designed as cost-effective, ready-to-use treatments to manage degradation of different wastes within a variety of industries. These products are also ideal for formulators and re-sellers who want to supply biological powder products but do not have the facilities to manufacture them. Alternatively, they are suitable for compounding with other micronutrients in the manufacture of microbial products for challenging applications or where continuous dosing may be required.

Many companies working in several markets need a product that will work effectively across a broad range of applications to reduce BOD, COD, sludge, odor, cellulosic solids, FOGs, lignin, etc. are now effectively using **CBHSP** as the answer for their multi-purpose solution.

This product range includes the following concentrations:

- 150 - 1.50E+09 cfu/g
- 500 - 5.00E+09 cfu/g
- 500-V - 5.00E+09 cfu/g bacillus spores + pseudomonas EVOGEN
- 1000 - 1.00E+10 cfu/g

advantages of High Strength Powders

optimized proprietary bacterial consortium degrades a broader spectrum of substrates

wide range of carriers available, including **eco-friendly** options

greatly reduces labor time

enhances BOD/COD removal

eliminates malodors at source

reduces sludge build-up

highly effective at degradation of fat and grease build-up
extensive shelf-life and stability

manufactured under strict quality control standards to ensure high quality and purity

applications

- wastewater treatment plants and sludge reduction
- septic tanks
- municipal line and lift stations
- ponds and water gardens
- composting
- farming
- aquaculture
- pulp and paper mills
- drain and sewage treatments
- general purpose bio-augmentation

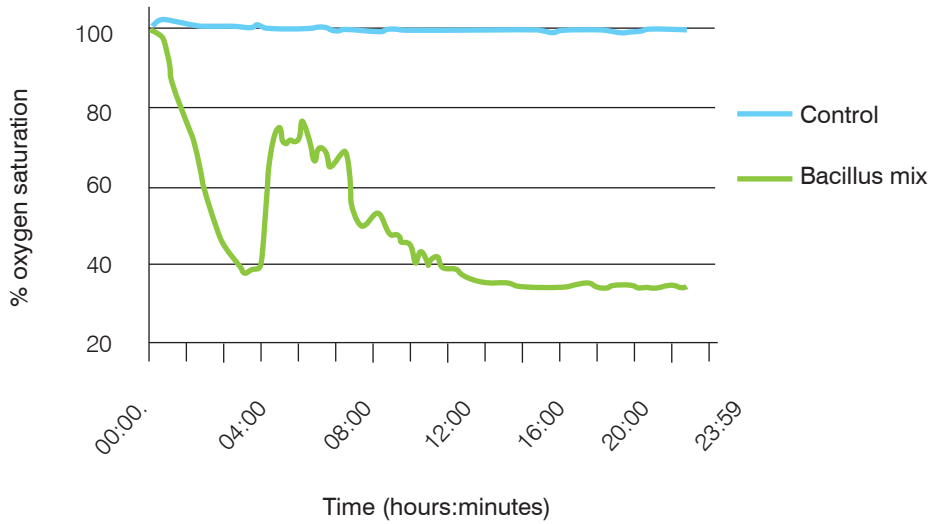


ClearBlu products help keep the environment clean



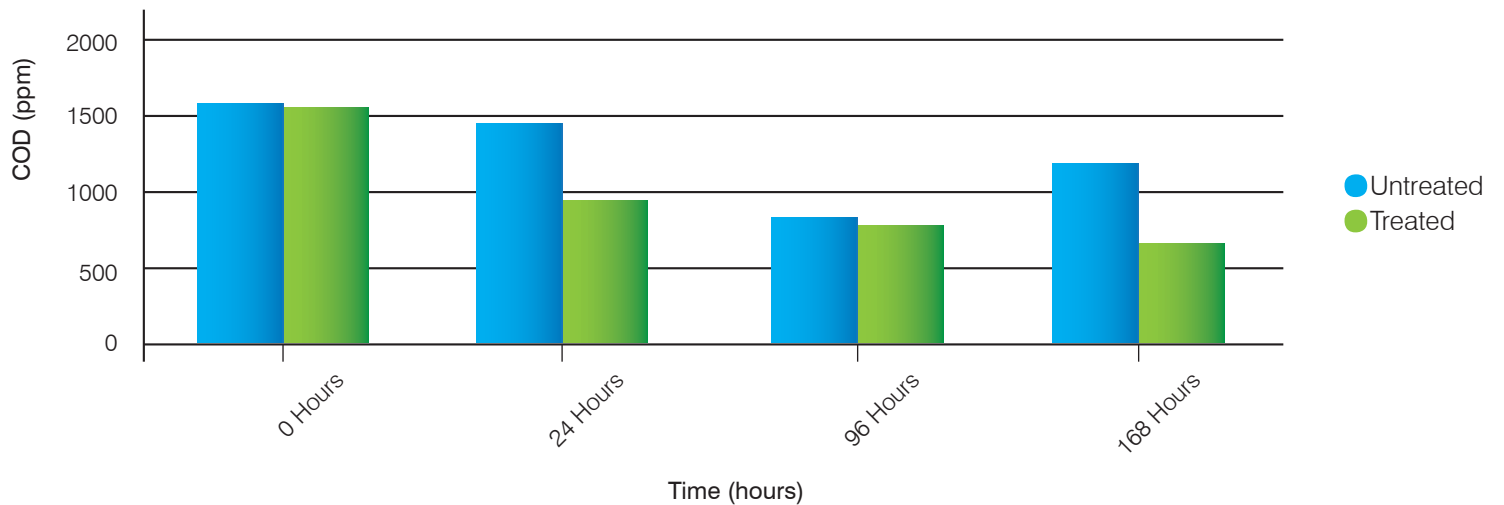
Wastewater treatment plants: one of the typical applications for the CBHSP

Biodegradation of synthetic wastewater by CBHSP



This graph shows the degradation of synthetic wastewater by the bacillus mix in **CBHSP** 100-110 series. As the substrate is degraded the % oxygen saturation decreases.

COD STUDY - synthetic wastewater treated with 5-strain blend in CBHSP POWDERS



This represents an average of **40% REDUCTION IN COD**

technical specifications for CBHSP POWDERS

| | | |
|-------------------------------|--|--|
| targeted compounds | wide range of organic compounds including proteins, starches, cellulose and fats, oils and greases | |
| bacterial count | <p>CBHSP 150 - 1.5e+09 cfu/g in dendritic salt</p> <p>CBHSP 500 - 5.00e+09 cfu/g in dendritic salt</p> | <p>CBHSP 500-V - 5.00e+09 cfu/g bacillus spores + pseudomonas in wheat bran</p> <p>CBHSP 1000 - 1.00e+10 cfu/g in dendritic salt</p> |
| bacterial type | bacillus spore blend (for CBHSP 500-V bacillus spores and vegetative microorganism blend) | |
| formula properties | off-white to tan free flowing powders with earthy odor (available in Canadian approved (CB) formulation) | |
| performance properties | effective pH range: 4.0-11.0 | temperature range: 45-120°F (5-50°C) |
| packaging | <p>25lb and 50lb containers 11.3 and 22.7 kilo containers also available in 2oz, 4oz, 8oz and 16oz bio-pouches</p> <p>products may be blended in different carriers but order size minimums may apply - check with your sales representative for specific availability.</p> <p>(shelf life of 24 months in an original unopened container).</p> | |