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Bionetix® BCP55[™] Delivers Bio-Remedy for High Starch, High Cellulose Wastewater

Industries like those that process cereals, grains, potatoes, and pure starch usually have a high load of organic matter in their waste water effluent. This heavy load of organic matter is identified by high levels of BOD (biological oxygen demand) and TSS (total suspended solids) that can quickly raise fees for waste discharge. This kind of



industrial effluent typically has high starch and cellulose concentrations. Buildup of these organics creates unpleasant odors and causes waste treatment difficulties. Fortunately, there are very natural ways to speed up the waste degradation process, lightening the load on municipal waste treatment facilities and lowering or eliminating costly wastewater surcharges for industrial plants.



Bionetix® International's BCP55™ contains a bacteria blend that is able to degrade starch, cellulose, and other organic waste through natural biological processes. Specially selected microorganisms in BCP55™ are high producers of amylase (which degrades starch) and cellulase (which degrades cellulose). Lipase and protease are also present to degrade lipids and proteins, respectively. When the

microorganisms of BCP55TM sense that a source of starch, cellulose, lipids, or proteins is nearby, they release their specialized enzymes, breaking down the organic waste into smaller and smaller pieces that the bacteria digest as food. The microorganisms release CO_2 and water as simple byproducts.

Adding BCP55 $^{\text{\tiny TM}}$ to wastewater is a form of bioaugmentation, a natural method of waste treatment. By establishing a healthy microorganism population (biomass) through the use of BCP55 $^{\text{\tiny TM}}$, high starch facilities can speed up the breakdown of the organic



waste load, reducing BOD and TSS concentrations and unpleasant odors more quickly. This will in turn lower the cost of fees or surcharges related to releasing high BOD wastewater. BCP55[™] also helps lower foam and lowers the risk for plant upset from a sudden influx of starch and cellulose wastes that are particularly difficult to degrade. BCP55[™] is compatible with activated sludge systems, lagoon systems, trickling filter beds, and rotating biological contactors.

Startup of wastewater pretreatment systems at a new industrial facility is another situation where BCP55[™] is helpful. Even under normal conditions, it can be challenging to quickly establish a good biomass that will support a sudden influx of contaminants. A high concentration of starch



and cellulose makes this even more difficult. Bioaugmentation with BCP55[™] will help support the startup process for facilities with high plant-based wastewater organics. It is also a good way to reseed a lagoon or activated sludge system after a plant upset. With the addition of BCP55[™] and any deficient nutrients, the biomass can quickly be renewed.

For facilities experiencing problems with starch overload, a shock dose of BCP55 $^{\text{\tiny M}}$ is usually recommended for the first three to ten days to get the system going, followed by a lower maintenance dose to promote a continuing healthy biomass.

To learn more about BCP55 $^{\text{\tiny TM}}$, please visit the following link: $\underline{\text{http://www.bionetix-international.com/products/industrialwaste/BCP55} \ \ \underline{\text{PDS_ENG_10-11-2016.pdf}}$

To learn more about Bionetix® products, please visit:

http://www.bionetix-international.com/

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Bionetix[®] International produces biological waste treatment products that are used in thousands of field applications worldwide. The Biological Series of products—among the earliest products introduced by Bionetix Canada – can be found in countless food preparation and processing locations in the United States, Europe, South America, and Asia. Numerous municipalities around the world have accepted these products. Headquartered in Quebec, Canada; Bionetix International is a subsidiary of Cortec[®] Corporation. ISO 9001:2000 Certified.

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