Zebec Biologicals

Z-BIO ETP102

Selected Bacteria Phenol, Cresol & Related Compounds

PRODUCT DESCRIPTION

Z-BIO ETP100 is a synergistic blend of selectively adapted bacteria for application to wastewater containing phenol, cresols and related aromatic compounds including catechol and cumene.

Applicable processes include Steel Coking, Coal Conversion, Petroleum Cracking, Plastic Resins & Pharmaceuticals.

The susceptibility of a biomass to upset depends primarily on the magnitude of change in phenolic concentrations.

Augmentation with strains capable of uninhibited growth at high phenolic concentrations can provide the following benefits to wastewater systems:
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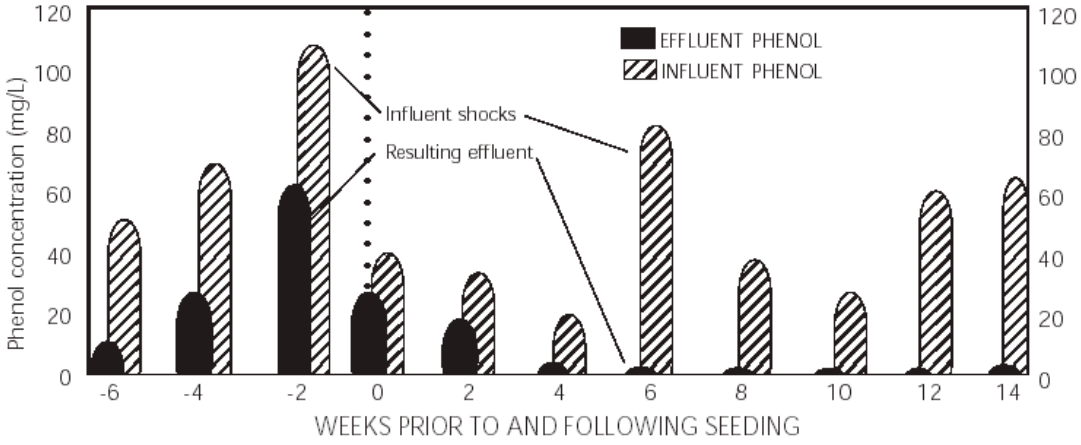
SPECIFIC BENEFITS OF ETP102

- Rapid recovery from toxic shocks caused by phenol and related compounds.
- Prevents poor removal efficiencies, disrupted flocculation or general plant upsets that result from variable phenolic loadings.
- Reduces the inhibitory effects of phenolics by increasing the growth rates and viability of phenolic degrading biomass.
- Degrades various halo-substituted aromatics such as bromo- and chlorophenols.
- Enhanced flocculation in activated sludge.



Demonstration of Phenol reduction and enhancement of plant stability in a refinery wastewater treatment system.

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GENERAL BENEFITS

- Improved waste system stability and reduced frequency and severity of upsets.
- Reduced effluent organics.
- Higher levels and diversity of protozoa.
- Rapid recovery from load-related and toxic upsets.
- Targeted removal of specific organics.
- Reduced impact of production increases or changes in product mix on effluent quality.
- Reduced municipal surcharges.
- More rapid new plant, seasonal, or post- maintenance start up.

FEATURES

- Contains vegetative and spore forming bacterial strains capable of utilizing aerobic, facultative and fermentative metabolic pathways.
- Contains no raw enzymes, surfactants or solvents.
- Rapid germination and outgrowth of spores.
- Bacteria can colonize a wide variety of surfaces to produce long-lasting effects.

PRODUCT CHARACTERISTICS

DRY CULTURE

- Bacteria count 5 billion/gram
- Stability Max loss of 1.0 log/yr when stored under recommended conditions
- pH Range 6.0 - 8.5
- Bulk Density 0.50 - 0.61 g/cm3
- Moisture content 15%
- Appearance Free-flowing, tan powder

AVAILABLE PACKAGING
5kg Container / 25kg Container / 2kg Z-BIO SOCK

LIQUID CULTURE

- Non-stock item. Call for shipping estimate.
- Typically 2-3 weeks backorder.
- Bacteria Count Min. 100 mil/mL, 380 billion/gal at time of manufacture
- Stability Max loss of 1.0 log/6 mos. when stored under recommended conditions
- pH Neutral
- Specific Gravity 1
- Appearance Turbid liquid

AVAILABLE PACKAGING
25 Litre Drum / 200 Litre Container

OPTIMUM CONDITIONS FOR USE

Bacteria in Z-BIO products perform within a Ph range of 6.0 - 9.0, with the optimum typically near 7.0.

Wastewater temperature affects activity, with an approximate doubling in maximum growth rate for each 10°C increase in temperature to an approximate upper limit of 40°C, unless otherwise indicated.

Very low activity can be expected below 5°C.

STORAGE & HANDLING

- Store in a cool, dry place.
- Avoid inhalation. Wash hands thoroughly with warm, soapy water after contact.
- Avoid eye contact.