



## BCP57

PULP AND PAPER WASTE  
BIOAUGMENTATION

# BCP57 PROVIDES GREATER RESISTANCE TO THE ORGANIC INHIBITORS IN PULP AND PAPER WASTE

Use in pulp and paper processing applications.

### BIOAUGMENTATION WITH BCP57 CAN:

- Accelerate degradation of unpleasant odours associated with handling pulp and paper wastes;
- Increase the efficiency of over-loaded treatment systems;
- Decrease BOD and TSS in effluent;
- Reseed after plant upset.

### PRODUCT TEST

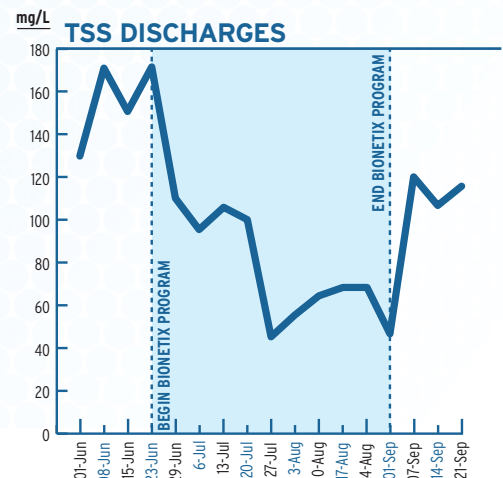
**Introduction** – A Canadian paper mill was experiencing problems due to toxic loadings in an already overloaded system. Among other problems, the plant was plagued with poor settleability and high-suspended solids. Throughout the year the mill suffered from elevated TSS discharges due to an overloaded ASB treatment system. This problem was more pronounced during the winter months when treatment efficiencies dropped off due to lower temperatures. As the summer wore on, it did not experience the improvement usually expected in the warmer period.

**Treatment** – BCP57 was added in dry powder form on June 23rd with daily maintenance dosages thereafter. The product was added directly to the lagoon system without the use of a pre-acclimatization device.

**Results** – Noticeable improvement was charted on July 26th - only four weeks later, and continued through September when the trial period was over.

### SPECIFICATIONS

Description	Tan color, free-flowing granular powder
Packaging	250g water-soluble packages; 10kg plastic pail
Stability	Max. loss of 1 log/yr
pH	6.0 - 8.5
Bulk Density	0.5 - 0.6g/cm <sup>3</sup>
Moisture Content	15%
Nutrient Content	Biological nutrients and stimulants
Bacteria Count	5 billion per gram
Storage and Handling	DO NOT FREEZE! Do not inhale dusts. Avoid excessive skin contact. See MSDS.



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## APPLICATION INSTRUCTIONS

### Treatment Plants –

Flow Rate	Initial Dosage	Maintenance**
Up to 0.1 L/sec	0.5kg/day for 3 days	0.5 kg/week
Up to 0.5 L/sec	0.5kg/day for 3 days	1.0 kg/week
Up to 2 L/sec	5 kg*	1.5 kg/week
Up to 5 L/sec	8 kg*	2.0 kg/week
Up to 25 L/sec	15 kg*	0.25 kg/day
Up to 50 L/sec	25 kg*	0.5 kg/day
Up to 100 L/sec	50 kg*	1.0 kg/day
Up to 500 L/sec	50 kg/100 L/sec*	1 kg/100 L/sec/day
Up to 1,200 L/sec	50 kg/100 L/sec*	0.75 kg/100 L/sec/day
Up to 10,000 L/sec	30 kg/100 L/sec*	0.5 kg/100 L/sec/day

\*Spread this initial dosage out over the course of 10 days.

\*\* Add as regularly as possible. If one day is missed, double the daily dosage the next day.

Dosage rates will vary with flow rates, retention times and system variations. The rates above are for a typical, well-maintained system.

**Activated Sludge Systems –** Activated Sludge Systems include various process flow sheets: e.g. extended aeration, contact stabilization, step aeration, oxygen activated sludge.

The application rate for all products is based on the average daily flow rate to the aeration basin, excluding the return sludge stream.

### Trickling Filter and Rotating Biological Contactors –

The application rate for all products is based on the average daily flow rate to the filter or contactor, excluding any recirculating process stream.

### Lagoon Systems –

- **Aerated systems** – application rate is based on the average flow rate to the lagoon.

- **Facultative systems** – application rate is based on the lagoon surface area:

Day 1-5	20 kg/10,000m <sup>2</sup> /day
Day 6+	2 kg/10,000m <sup>2</sup> /week

- **Anaerobic systems** – Application rate is based on the total volume of the anaerobic lagoon:

<200,000 L	1 kg – 2x/week/10,000L
>200,000 L	0.5 kg – 1x/day/10,000L

- **Lagoons in cold climates** – commence program when the water temperature is at least 11°C (50°F).

For further information about application, contact your BIONETIX technical representative.