BCP11 TREATS CHEMICAL INDUSTRY WASTEWATER STREAMS

BCP11
CHEMICAL WASTE TREATMENT

BIOAUGMENTATION WITH BCP11 CAN:

- Help start-ups in new plants;
- Improve effluent quality;
- Increase wastewater treatment efficiency;
- Reduce plant upsets from shocks;
- Control filaments;
- Lower odours and foam.

PRODUCT TEST

Introduction – Wastewater from a solvent recovery plant that redistills and purifies used solvents was the subject of biological wastewater treatment. The wastewater is derived from rainwater, washing contaminants from the process equipment, the ground surrounding the equipment and from process water contaminated with various chemicals.

Treatment – The treatment process involved adjustment of the pH and aeration of a container filled with contaminated water. BCP11 was added to the tank along with BCP35 to ensure a complete degradation of low and high molecular weight contaminants. The initial concentration of COD was about 15,000. The tank was left over a seven-day period with COD readings taken each day. The pH was adjusted to approximately 7.5 with sulphuric acid.

Results – Foaming was observed at the 3-4 day mark and started to settle out after that. By day 5 the foaming was greatly reduced. The final COD figure was less than 700 ppm and equates to a 96% reduction. Theoretically the BOD results would be reduced similarly.

This plant will now be able to meet their municipal discharge limits for BOD thanks to the effectiveness of BCP11.

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 – 0.61g/cm^3
Moisture Content	15%
Nutrient Content	Biological nutrients and stimulants
Bacteria Count	5 billion per gram
Storage and Handling	DO NOT FREEZE! Store in a cool dry location. Do not inhale dust. Avoid excessive skin contact. See MSDS.

Bionetix INTERNATIONAL *We work for nature*

Bionetix International
21 040 rue Daoust, Ste-Anne-de-Bellevue, Quebec, Canada H9X 4C7
T 514 457.2914 F 514 457.3589 www.bionetix-international.com

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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^2/day
Day 6+	2 kg/10,000m^2/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 seasonal or widely fluctuating flows, contact your BIONETIX technical representative.