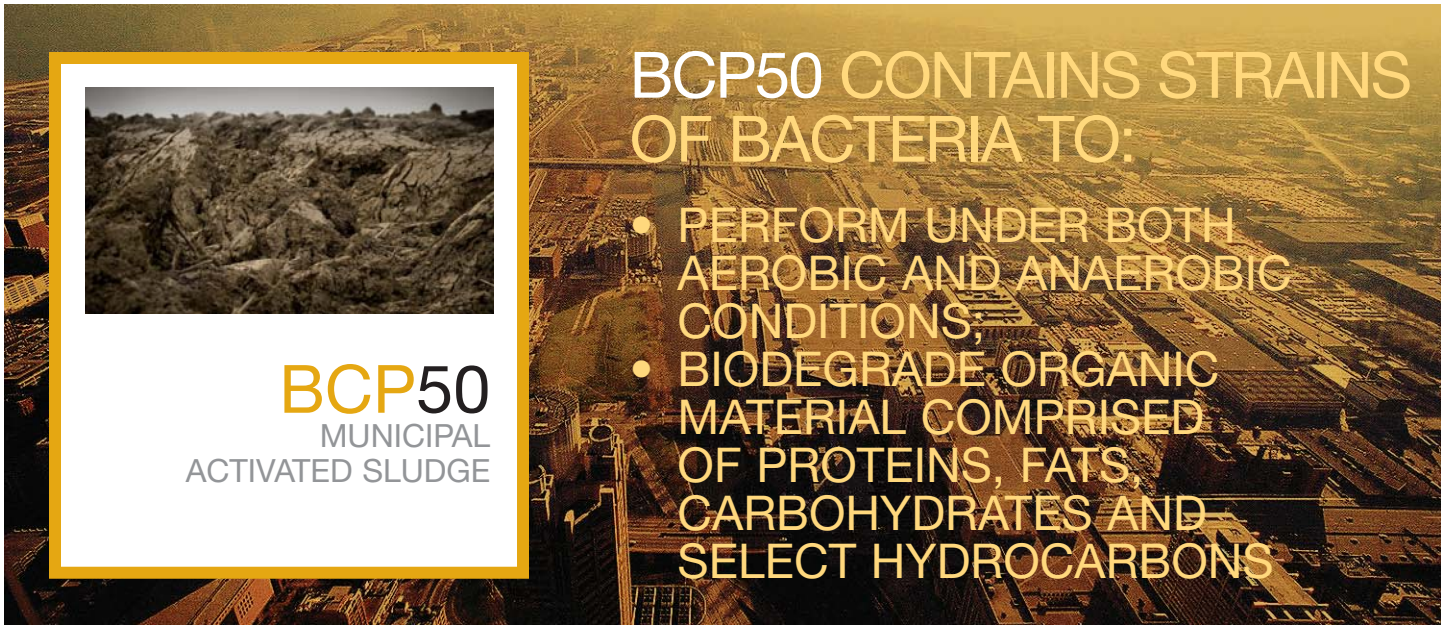

# BCP50

MUNICIPAL
ACTIVATED SLUDGE

## BCP50 CONTAINS STRAINS OF BACTERIA TO:

- PERFORM UNDER BOTH AEROBIC AND ANAEROBIC CONDITIONS;
- BIODEGRADE ORGANIC MATERIAL COMPRISED OF PROTEINS, FATS, CARBOHYDRATES AND SELECT HYDROCARBONS

## BIOAUGMENTATION WITH BCP50 CAN:

- Reduce sludge;
- Reduce odours;
- Improve effluent;
- Fast start-up.

## PRODUCT TEST

*Introduction* – The effluent from a starch plant contains nitrogen compounds primarily in the form of organic compounds that are easily converted into ammonia in a treatment plant. These compounds are not wanted in treated wastewater and attempts are made to remove or concentrate them before their discharge into the sewage system.

The purpose of this experiment was to demonstrate the effect of BCP22, BCP50 and trace amounts of STIMULUS on the water purification process and reduction in odor in a starch plant.

*Treatment* – A 2 tonne tote (1m x 1.3m x 1.5m) was filled with 1.5m$^3$ of sludge liquor (consisting of 6% slag) with a BOD concentration of 6000 mg/L. An oxygen cylinder (150um x 4) was used for air curation.

- ***STIMULUS and BCP22*** – 1L of STIMULUS (concentration 0.66%) and then 0.5kg of BCP22 were added to the sludge liquor and the results were observed 7 days later. The oxygen rate was set at 6%, oxygen flow was reset to 0.2 m$^3$/min and the pH value at 8.2.
- ***STIMULUS and BCP50*** – 1L of STIMULUS (concentration 0.66%) and 0.5kg of BCP50 were added to the sludge liquor to compare the performance with that of STIMULUS and BCP22. The oxygen rate was set at 6%, oxygen flow at 0,2m$^3$/min. and the pH value at 8.2.

*Results* – The selected biologicals are capable of efficient degradation of odorous compounds including ammonia. This degradation led to a reduced concentration of these compounds. A reduction in the concentration level of these odorous compounds led to a reduction in the level of odor intensity.

## 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!<br>Store in a cool dry location.<br>Do not inhale dust.<br>Avoid excessive skin contact.<br>See MSDS. |

**FOR MUNICIPAL WASTEWATER BIOLOGY IN COLDER TEMPERATURES**

Bionetix INTERNATIONAL *We work for nature*

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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.

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