



PRODUCT DESCRIPTION – EnBac® B120

Description

EnBac® B120 is a powder containing a specially-formulated range of micro-organisms, which biologically treats wastewaters within Anaerobic Digesters.

EnBac® B120 contains:

- High performance aerobic and facultative anaerobic micro-organisms
- Specific micro-nutrients for wastewaters within Anaerobic Digesters (including trace metals, vitamins, amino acids and metabolic stimulants)
- Macro- nutrients – essential to the balanced growth of the micro-organisms
- Bio-enhancer

How EnBac® B120 works

The micro-organisms in EnBac® B120 will form a biomass within the treatment environment. The micro-organisms will then produce enzymes which go to work on the Fats, Oils and Greases (FOG) in the wastewater. They break down the fats, so that the fats don't get the chance to conglomerate, and the end products are CO₂ and H₂O.

The Effects of Using EnBac® B120

B120 enhances the organic removal efficiency of a treatment system. This reduces BOD, COD and TSS.

B120 improves methane production by altering fats, oils and greases (FOG) into carbon dioxide and small volatile acids.

B120 reduces the accumulation of unsightly grease deposits, so increasing the efficiency of the treatment system and reducing maintenance costs.

B120 improves solids settling, where this may have been disturbed by loading fluctuation.

B120 accelerates the start-up of new systems and aids recovery after upsets.

Low temperatures may upset treatment systems. B120 helps to improve cold weather operation.

B120 reduces sludge production.

B120 controls flocculation by competing against filaments.

B120 significantly reduces odours in the treatment system's local environment.

Dosage Rate for Treatment Plants

| <u>Flow Rate</u> | | <u>Initial Dose</u> | <u>Maintenance Dose</u> |
|-----------------------------------|------------|---------------------|----------------------------|
| Up to 10 m ³ /day | 0.1 lps | 0.5kg pd x 3 days | 0.5kg per week |
| Up to 50 m ³ /day | 0.5 lps | 1.5kg pd x 3 days | 1kg per week |
| Up to 200 m ³ /day | 2 lps | 5kg* | 1.5kg per week |
| Up to 400 m ³ /day | 5 lps | 8kg* | 2kg per week |
| Up to 2000 m ³ /day | 25 lps | 15kg* | 0.25kg per day |
| Up to 4000 m ³ /day | 50 lps | 25kg* | 0.5kg per day |
| Up to 8000 m ³ /day | 100 lps | 50kg* | 1kg per day |
| Up to 40,000 m ³ /day | 500 lps | 50kg per 100 lps* | 1kg per 100 lps per day |
| Up to 100,000 m ³ /day | 1200 lps | 50kg per 100 lps* | 0.75kg per 100 lps per day |
| Up to 800,000 m ³ /day | 10,000 lps | 30kg per 100 lps* | 0.5kg per 100 lps per day |

*Spread Initial dose equally over 10 days

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

Dosage Rates for Activated Sludge Systems

For various processes including Extended Aeration Processes, Contact Stabilisation, Step Aeration and Oxygen Activated Sludge Systems, use the above table to calculate the correct dosage rate based on the average daily flow to the aeration basin, *excluding* the return sludge stream. If the flowrate is not regular due to seasonal or other reasons, please contact your Distributor or us for advice.

Dosage Rates for Trickling Filter and Rotating Batch Contactors (RBCs)

Use the above table to calculate the correct dosage rate based on the average daily flow to the filter or contactor, *excluding* the recirculated stream. If the flowrate is not regular due to seasonal or other reasons, please contact your Distributor or us for advice.

Dosage Rates for Lagoons

These vary depending on the design of the lagoon:

Aerated Lagoon Systems

Use the above table to calculate the correct dosage rate based on the average daily flow into the lagoon.

Faculative Lagoon Systems

The dosage rate is calculated according to the lagoon's surface area:

Day 1,2 and 3 20kg per 10,000 square metres

Day 4+ 2kg per 10,000 square metres

Anaerobic Lagoons

The dosage rate is calculated according to the lagoon's total volume:

<200,000 litres 1kg – 2x per week, per 10,000 litres

>200,000 litres 0.5kg – per day, per 10,000 litres

Cold Climate Lagoons

Commence the treatment when water temperature is at least 11° C.

Packaging

40 x 250g watersoluble sachets. 10kg per plastic bucket.

Storage

Avoid storage below freezing and above 38°C. Keep product dry. Do not use on food contact surfaces. Avoid contamination of food during use and storage.

Safety

Avoid inhaling dust. Do not ingest product. If product is swallowed, do not induce vomiting. Give water to dilute product in stomach. Wash hands after using product. Eye contact may cause irritation. Flush with water for at least 15 minutes. See MSDS for additional information.

The information presented in this data sheet is believed to be reliable. This information is provided as representative only and there are no warranties, expressed or implied, regarding its performance. Since neither manufacturer nor distributor has any control over handling, storage, use and application conditions, neither manufacturer nor distributor shall be responsible for loss, damage or expense arising out of, or in any way connected with, the handling, storage or use of the product described.

Bio-Systems Corporation Ltd
Unit F1, Kings Drive
Kingmoor Park South
Carlisle
CA6 4RD

Telephone: +44 (0)1228 522255

email: office@biosystemsbio.com