

# Advance Biotechnologies of Canada

"Advanced Microbiology for a Clean, Safe Environment"

## ADB 250

### Dairy Waste Bio-Augmentation

ADB250 contains a specially formulated range of adapted, high-performance microorganisms for use in biological wastewater treatment of dairy wastes. As well as microorganisms, ADB250 contains a micronutrient blend specially selected for milk processing wastes. This micronutrient blend provides a complete formulation for maximum biological activity and reacts with dairy waste to produce biological enhancers. When used as directed ADB250 is safe and is harmless to people, clothing and the environment and is completely biodegradable. When applied to effluent treatment facilities, ADB250 helps to establish a biomass capable of handling these difficult wastes.

ADB250, with its aerobic and facultative anaerobic microorganisms-establishes and maintains a biomass which by providing greater resistance to the effects of organic inhibitors present in dairy waste waters, is able to perform more effectively than the naturally occurring biomass. ADB250 ensures that the natural mechanism for the selection of the biomass population is presented with a range of selected microorganisms. These aerobic and facultative anaerobic bacteria have been taken from their natural environment and then adapted to give optimum performance.

#### Specifications:

Form: Free-flowing granular powder  
Color: Brown or Blue  
Nutrient Content: Biological nutrients & stimulants  
Plate Count: 5 billion per gram

#### Application Instructions:

##### Treatment Plants

<i>Flow Rate</i>	<i>Initial Dosage</i>	<i>Maintenance**</i>
Up to 0.1 lps	½ kg. per day for 3 days	½ kg. per week
Up to 0.5 lps	½ kg. per day for 3 days	1kg. per week
Up to 2 lps	5 kg.*	1½ kg. per week
Up to 5 lps	8 kg.*	2 kg. per week
Up to 25 lps	15 kg.*	¼ kg. per day
Up to 50 lps	25 kg.*	½ kg. per day
Up to 100 lps	50 kg.*	1 kg. per day
Up to 500 lps	50 kg. per 100 lps*	1 kg. per 100 lps per day
Up to 1200 lps	50 kg. per 100 lps*	¾ kg. per 100 lps per day
Up to 10,000 lps	30 kg. per 100 lps*	½ kg. per 100 lps per day

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

\*\* Add as regularly as possible. If it is required to miss one day, add that day's product with the next dosage.

Dosage rate 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 for example: 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 seasonal or widely fluctuating flows, contact your BIO-SYSTEMS technical representative.

##### 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. For seasonal or widely fluctuating flows, contact your Advance Biotechnologies technical representative.

##### Lagoon Systems

- For aerated lagoon systems, the application rate based on the average flow to the lagoon.
- For facultative lagoon systems, the application rate is based on the lagoon surface area:
  - Day 1 through Day 5 20 kg. per 10,000 cubic meters per day
  - Day 6+ 2 kg. per 10,000 cubic meters per week
- For anaerobic lagoons, the application rate is based on the total volume of the anaerobic lagoon.
  - <200,000 liters 1 kg. - 2x per week per 10,000 liters
  - >200,000 liters ½ kg. - 1x per day per 10,000 liters
- For lagoons in cold climates, commence program when the water temperature is a least 50oF (11oC)

#### Benefits of ADB250:

- Helps start-up in new plants
- Improves effluent quality & Reduces grease buildup
- Controls Filaments & Lowers odors and foam

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