



BCP655

BIOCONVERTER FOR
INDUSTRIAL AND
MUNICIPAL LAGOONS

BCP655 CONSUMES INORGANIC NITROGEN SUCH AS AMMONIA, NITRATE AND NITRITE IN MUNICIPAL AND INDUSTRIAL TREATMENT PLANTS

BIOAUGMENTATION WITH BCP655 CAN:

- Remove nitrogen from wastewater rather than converting it to another form
- Reduce ammonia levels
- Remove organic nitrogen i.e. amino acids, proteins, purines, pyrimidines, nucleic acids
- Increase wastewater treatment efficiency by at least 50%
- Reduce plant upsets from shocks
- Eliminate expensive surcharges due to high TKN discharge levels

BIOAUGMENTATION METHOD

The Bacillus and Pseudomonas bacteria used in BCP655 are heterotrophs and utilize organic carbon as the source for food and energy. During this process, overall nitrogen removal occurs through three separate mechanisms:

- The selected Pseudomonas strains have a much higher carbon uptake than what is normally encountered in a wastewater treatment system. As their carbon uptake is usually higher (because they can attack a wide range of organic chemicals), the corresponding nitrogen uptake is higher. Since ammonia is available as a nitrogen source, the ammonia consumption is increased also and the discharge ammonia levels are reduced in the treated water.
- Pseudomonas bacteria, considered to be active denitrifiers, utilize nitrite/nitrate for respiration if the dissolved oxygen drops below the critical level in the aeration tank. This also results in lower nitrogen levels.

- Pseudomonas are capable of utilizing nitrite as well as nitrate for growth purposes if ammonia is no longer available in the system.

Bioaugmentation with BCP655 results in removal of nitrogen from the wastewater, rather than a conversion from ammonia to nitrate or nitrite. Can be used with A55L to increase overall nitrogen removal.

SPECIFICATIONS

Description:	Beige powder with black granules
Packaging:	Bulk, water soluble pouches (200 x 56g, 400 x 28g, 40 x 250g), custom packaging available
Bulk Density:	0.50– 0.65 g/cm ³
Stability:	Max. perte de 1 log/ year
pH (Solution 1%):	6-8.5
Nutrient Content:	Biological nutrients and stimulants
Bacteria Count:	5 billions CFU/g
Storage and Handling:	DO NOT FREEZE! Store in a cool dry location. Do not inhale dust. Avoid contact with eyes. See SDS. Bionetix® will not be held responsible for quality issues after 6 months of storage.

**A COST EFFECTIVE
SOLUTION TO A
COMMON PROBLEM**

BCP655

BIOCONVERTER FOR
INDUSTRIAL AND
MUNICIPAL LAGOONS

COMPARISON OF TREATMENT

Nitrifiers	BCP655
Temperature dependent	Wider range of temperature NITROGEN REMOVAL IN COLD WEATHER
Ammonia conversion coupled with BOD/COD reduction	Ammonia, nitrite and nitrate, digestion is not coupled with BOD/COD reduction
Sensitive to toxic organic com- pounds	Consumes organic compounds NO TOXICITY PROBLEMS
Ammonia is oxidized in the presence of air	Ammonia is not oxidized LOWER OXYGEN REQUIRE- MENT
Nitrite/nitrate needs to be de- nitrified to nitrogen gas	DENITRIFYING BACTERIA

BIOAUGMENTATION METHOD

Lagoon Systems —

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

Day 1-3	20 kg/10,000m ² /day
Day 4+	2 kg/10,000m ² /day

- 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 50°F(10°C) For further information about application contact your BIONETIX® technical representative.