

Micronutrient Bacterial Booster



BIO-SYSTEMS
INTERNATIONAL

Description

Proper biological activity is often a function of the nutrients available to sustain and develop healthy biological populations.

BioBug MN is designed to provide the essential micronutrients to supplement bacteria's basic metabolic needs. BioBug MN fulfills the micro nutrient need in both the aerobic and anaerobic environments. The components of BioBug MN are all natural and non-processed, readily soluble components.

In waste treatment facilities where results are vital, and where nutrient deficiencies are present, BioBug MN is proven at increasing and sustaining bacterial activity.

Effect

BioBug MN saves time and money for industrial, commercial and municipal wastewater treatment systems by:

- Sustaining and accelerating biological activity in situations where incoming BOD's are unpredictable.
- Plant start-up.
- Anaerobic digester start-up.

Biological Nutrients and Stimulents

Benefits of BioBug MN:

- Stabilize biological populations in toxic and nutrient deficient conditions
- Reduce plant sensativity to events which may otherwise cause upset
- Aids for smooth plant start up
- Controls foaming and bulking caused by nutrient deficient conditions
- Works in aerobic and anaerobic environments

BioBug MN When results are vital Aerobically Anaerobically

BioBug MN Constituents Include:

Mineral Composition

Antimony	Copper	Phosphorus
Barium	Flourine	Potassium
Beryllium	Germanium	Selenium
Bismuth	Iodine	Silicon
Boron	Iron	Sodium
Bromine	Magnesium	Sulpher
Calcium	Manganese	Zinc
Chlorine	Molybdenum	
Cobolt	Nitrogen	

Vitamin Composition

Absorbic Acid	Folinic acid
B12	Niacin
Biotin	Riboflavin
Carotene	Thiamin
Folic acid	Tocopherols

Carbohydrate Composition

Aliginic acid
Laminarin
Mannitol
Methylpentosans
Undefined Sugars

Amino Acid Composition

Alanine	Glycine	Proline
Amide N	Histidine	Serine
Arginine	Isoleucine	Threonine
Aspartic acid	Leucine	Tryptophan
Cystine	Lysine	Tyrosine
Glutamic acid	Phenylalanine	
Valine + Methionine		



1-800-232-BUGS
2 8 4 7
www.BIOBUGS.com

Micronutrient Bacterial Booster



BIO-SYSTEMS
INTERNATIONAL

Specifications

Form: Free-flowing granular powder
Color: Dark Green
Specific Gravity: 0.7 g/cc

Packaging

250 grams water soluble pouches protected by a foil overwrap. 10 kilos per plastic pail.

Storage

DO NOT FREEZE! Store in a cool dry location. Do not inhale dusts, avoid excessive skin contact. SEE M.S.D.S.

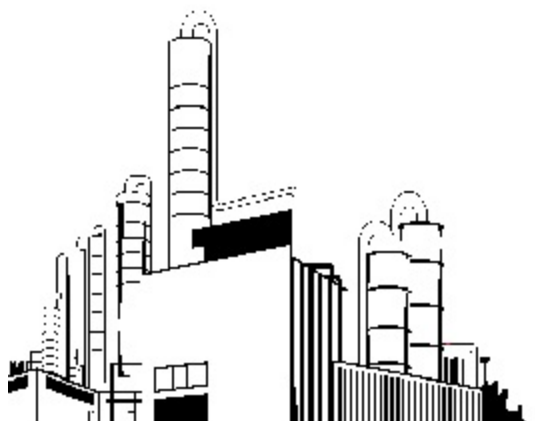
Application Instructions

Application rates can be provided by a qualified BIO-SYSTEMS Waste Water Specialist. Application rates and locations depend on plant type, type of deposits and wastes existing in the treatment operations and current biological conditions.

Our general recommended guidelines are to use 1 kilo of BioBug MN to 1000 kilos BOD loading.

Custom Blends are Available!

BioBug MN may also be blended with specialized micronutrients to meet customer specifications.



Case History 1123

A Canadian Pulp and Paper mill was suffering from toxic loadings in an already overloaded system. Poor settling and high TSS numbers were only the beginning of their problems. The plant turned to BIO-SYSTEMS for help.

BIO-SYSTEMS product was added on June 23rd, 2000 on a daily basis. TSS levels at the start of the program were up around 168 mg/l. The plant experienced a noticeable improvement on July 26th - only 4 weeks later. By the end of the 60 day trial, TSS levels had dropped to around 47 mg/l!



Case History 438

This Midwestern plant receives influent from various industrial sectors as well as some domestic waste. With consistently low Food-to-Microbe ratios (F/M), the plant was experiencing foaming problems and slime-induced bulking. This client was amazed at the results seen after only 10 days of using BIO-SYSTEMS product. The nutrient formulation allowed his bug population to grow, dramatically improving plant operation.

Your local Distributor is:

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 distributor nor manufacturer has any control over handling, storage, use and application conditions, neither distributor nor manufacturer 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.

0000018



1-800-232-BUGS
2 8 4 7
www.BIOBUGS.com