

Municipal Activated Sludge



BIO-SYSTEMS
INTERNATIONAL

Specifications

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

Packaging

250 grams water soluble packages 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

Treatment Plants

Flow Rate

Up to 1,000 gpd
Up to 5,000 gpd
Up to 20,000 gpd
Up to 50,000 gpd
Up to 250,000 gpd
Up to 500,000 gpd
Up to 1 mgd
Up to 5 mgd
Up to 12 mgd
Up to 100 mgd

Initial Dosage

½ lbs. per day for 3 days
½ lbs. per day for 3 days
5 lbs.*
8 lbs.*
15 lbs.*
25 lbs.*
50 lbs.*
50 lbs. per mgd*
50 lbs. per mgd*
30 lbs. per mgd*

Maintenance**

½ lb. per week
1 lb. per week
1½ lb. per week
2 lb. per week
¼ lb. per day
½ lb. per day
1 lb. per day
1 lb. per mgd per day
¾ lb. per mgd per day
½ lb. per mgd per day

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

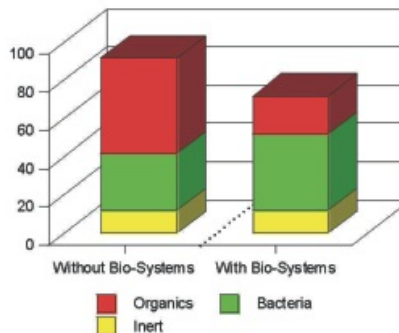
** Add as regularly as possible. If it is required to miss one day, add that day's product with the next dosage.

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.

BioBug reduces the sludge produced in any type of secondary biological treatment system by improving the degradation of organic material and converting it to dead "Bugs" that weigh less and occupy less space.



Please call the number below for details!

Estimated Improvements:

High rate system with no primary clarifier: **25 to 35% reduction in dry solids produced.**

Long retention time (greater than twenty four hours in aeration) with primary clarifier: **10 to 15% reduction in total dry solids.**

Long retention time (greater than twenty four hours in aeration) without primary clarifier: **20% reduction in dry solids.**

Further reduction in the amount of wet sludge hauled may be achieved because the solids dewater better too!



*BOD, Suspended Solids
and Sludge*

Your local Distributor is:



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

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.

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Description

BioBug AS is a biological product specifically formulated to be effective in enhancing municipal waste water biology during colder winter months.

Through extensive research activities, BioBug AS has been developed to involve different strains of bacteria which have been selected for their ability to perform under both aerobic and anaerobic conditions, and to biodegrade organic material comprised of proteins, fats, carbohydrates and select hydrocarbons.

To assure rapid establishment in the biomass, BioBug AS is produced and blended with select biological nutrients and stimulants. BioBug AS is produced under cGMP quality assurance conditions.

Effect

BioBug AS, 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 municipal wastewaters, is able to perform more effectively than the naturally occurring biomass. BioBug AS 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.

Bacterial Formulation
Plus
Bio-Enhancer
Plus
Micronutrient

Benefits of BioBug AS:

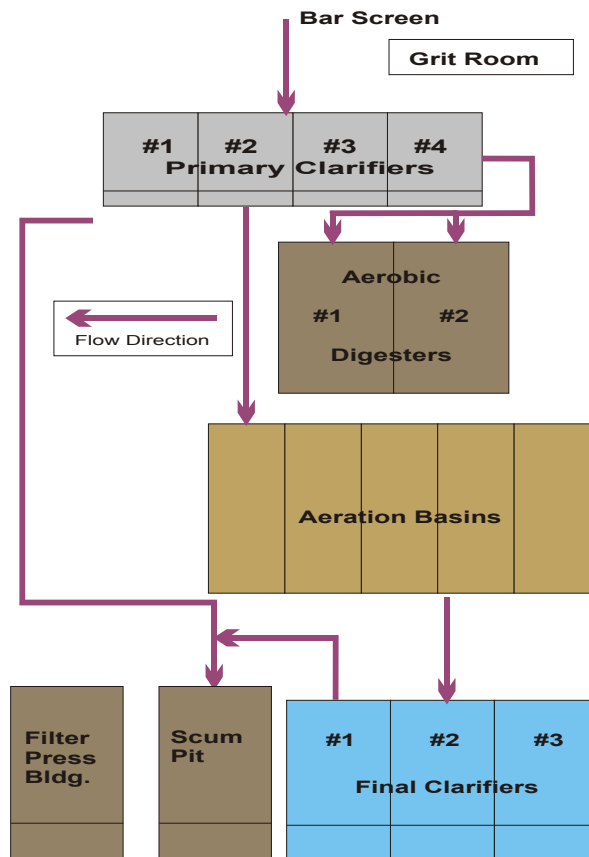
- Reduce Sludge
- Improve Effluent
- Reduce Odors
- Fast Start-up



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Sludge Reduction Programs

- Reduce sludge build-up
- Control grease, foaming, or scum formation
- Improve settling
- Reduce odors
- Produce an excellent effluent



Filamentous Control

- Ensure rapid biological start-up with suppression of undesirable filamentous bacteria
- Provide competitive organisms to reduce filamentous activity.