

# Bioclean Septic

Your cost efficient bioaugmentation technology for anaerobic digestion



# MalaTECH

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## FOR THE ANAEROBIC TREATMENT OF

- SLUDGE FIELDS, AND PONDS
- LEACHATE
- SLURRY
- SEPTIC TANKS
- CESSPOOLS

EFFLUENT QUALITY OPTIMIZATION - INCREASED RESISTANCE - INCREASED ANAEROBIC METABOLIC RATE - SLUDGE REDUCTION - ODOR CONTROL

Bioclean Septic is a natural biological product consisting specially selected enzyme producing microorganisms that are suspended in a dormant state. Once exposed to water they will activate and begin their normal life cycle. One gm of product contains various selectively adapted waste digesting microbes. We developed the product for the cost-efficient optimization of psychrophilic anaerobic processes at households, municipalities, and industries.



## IMPORTANT INFORMATION:

For determining exact dosages for your application, please provide us information by sending us our questionnaire filled with information as much as possible: [Click here for questionnaires!](#)

Whenever you have any questions, do not hesitate to [contact us!](#)

## PACKAGING INFORMATION

The product is available in 250-gram metal-wall bags, 60 bags make up 1 carton box which is the lowest unit for ordering.

## STORAGE INFORMATION

Keep the product in a cool and dry place below 30 Celsius. Avoid exposure to direct sunlight.

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# BIOCLEAN SEPTIC - PROCESS DESCRIPTION

APPLICATION FOR SEPTIC TANKS AND CESSPOOLS - WASTEWATER TREATMENT, SLUDGE REDUCTION, GREASE REDUCTION, ODOR CONTROL

The microbes in Bioclean Septic are specially selected to digest the things that clog up your septic system and adversely affect the environment detergents, grease, fat, proteins, paper and starch. Bioclean Septic is unsurpassed as a safe, natural method for digesting organic waste, eliminating odour and removing organic build-up from pipes, tanks and leach drains. It helps ensure the optimum efficiency of your septic system. The cost of a regular weekly/monthly maintenance programme is a small price to pay to help to protect your septic system and your environment. Microbial digestion is the simplest and cleanest way to reduce your septic tank waste. When you tip a measure of Bioclean Septic down the toilet or the kitchen sink the microbes immediately establish them and multiply in your septic system. Under ideal conditions one bacterium divides every twenty minutes multiplies to 33 million in about 8 hours.



- Restores biologic health of the septic systems naturally.
- Eliminates foul odors emanating from the septic system.
- Bioclean Septic biodegrades organic blockages in drain field lines, gravel leach pits and porous stone pit walls.
- Keeps septic lines and drain fields cleaner with reduced carry over of undigested organic pollutants.
- Reduce septic tank pump-outs.
- Operational savings are perhaps the greatest product benefit, preventing messy drainage & treatment system clogs, costly downtime and major repairs.
- Microbial digestion by Bioclean Septic is the simplest and cleanest way to reduce your septic tank waste and keep it working properly.

## DOSAGE RECOMMENDATION FOR CESSPOOLS, AND SEPTIC TANKS

Use 250 grams of Bioclean Septic for 5000 litres tank volume every week for 4 weeks, preferably into a different plumbing outlet. Then start the monthly maintenance program.

## DOSAGE RECOMMENDATION FOR THE PREVENTION OF CLOGGING OF DRAIN LINES AT HOUSEHOLDS

Use 50 grams of Bioclean Septic at the selected plumbing outlet, and flush down the powder with low amount of tepid water. Repeat every 3-4 days. Preferably do it when the system is about to be left unused for several hours (nighttime).

# BIOCLEAN SEPTIC - PROCESS DESCRIPTION

## ANAEROBIC WASTEWATER, LEACHATE, SLURRY, AND SLUDGE TREATMENT

Application of Bioclean Septic boosts anaerobic processes in storage ponds, tanks, and in anaerobic wastewater treatment with continuous wastewater load. The application of the product is very easy and straightforward, but a different approach is needed for applications with extremely high hydraulic residence time for the raw material, where the raw material is usually hardly biodegradable (slurry treatment, and odor removal, organic sludge reduction in sludge storage ponds, and odor control), and for applications with lower HRT, but continuous load, and more easily biodegradable substances in the feed (leachate treatment, anaerobic wastewater treatment).



## SLURRY TREATMENT, AND ODOR CONTROL, SLUDGE REDUCTION IN SLUDGE STORAGE PONDS, AND ODOR CONTROL

These high HRT applications may result one of the best return of investment timeframe for our customers. High hydraulic residence time enables a very low specific load for Bioclean Septic compared to the target achieved. Bioclean Septic powder needs to be premixed with water, and the recommended way to execute the treatment is to use a high capacity pump with hoses and sprayer head, and pour the aqueous suspension of the product directly on the surface of the pond or tank filled with the raw material AS EVENLY COVERING THE SURFACE AS POSSIBLE. Please pay attention to the top of the pond or tank: if the raw material floated up on the top because of anaerobic activity and gas formation before the treatment, and forms a thick layer on the top, the access of Bioclean Septic to the raw material may become limited. In this case, after spraying the suspension of Bioclean Septic on the top of the layer covering the surface, you need to keep the surface wet by spraying water on it from time to time to prevent the surface from drying out, which would cause immediate death for bacteria in Bioclean Septic. If the surface is kept wet, Bioclean Septic will start to degrade the thick layer of organics on the top, and once it is done bacteria enter the water column, and start to degrade dissolved organic matter, and particulate organic matter on the top of the sludge layer.

Bioclean Septic treatment is able to deliver 30% more Total Nitrogen removal in an anaerobic way than generic pond bacteria already exist in the system. Fouling odors mainly caused by Hydrogen Sulfide, Mercaptans, and Ammonia are also significantly reduced.

## DOSAGE OF BIOCLEAN SEPTIC IN SLURRY, AND SLUDGE PONDS/TANKS

Since the HRT is high, the Bioclean Septic treatments are recommended to be done periodically.

First treatment of the pond or tank: 60-200 ppm depending on overall net volume of liquid & solid waste in the pond or tank, e.g. for 2 000 m<sup>3</sup> net volume of sludge or slurry, and water 120-400 kg of Bioclean Septic is recommended for the first treatment depending on the nature, and concentration of the solid content.

Second and ongoing treatments can be done with 30-40% less Bioclean Septic (etc. 35-140 ppm). The frequency of the treatments



highly dependent on required timeframe by the customer for the anaerobic treatment. and the frequency, and quantity of new raw materials coming into the pond or tank. Treatments can be repeated every month, every second month, or if time is given for anaerobic breakdown, it can be done even twice a year.

#### DOSING LOCATION

Even pouring of Bioclean Septic suspension onto the surface of the waste stored in the pond/tank.

#### LEACHATE TREATMENT, ANAEROBIC WASTEWATER TREATMENT, ODOR CONTROL

In case of applications with lower hydraulic retention time for the influent, daily dosage is recommended for Bioclean Septic. The product does not need pre-activation for leachate, and anaerobic wastewater treatment applications, so no dosing unit or dosing system is needed for the application. The daily dosage can be done as a slug-dose once per day. Necessary amount of Bioclean Septic should be well-premixed with water, and the aqueous suspension should be added to the raw inlet, or in the first part of the anaerobic bioreactor or pond.



All natural strict, and facultative anaerobic bacteria in Bioclean Septic boosts anaerobic processes in the reactor or pond. Our customers can expect COD/BOD removal to be executed at a much higher rate resulting way lower effluent parameters. Total Nitrogen removal capacity of the anaerobic system can grow up to 30% more than the system was able to achieve with its generic bacteria. Odor control due to Hydrogen Sulfide, Mercaptans, and Ammonia is also achieved successfully by Bioclean Septic.

#### DOSAGE OF BIOCLEAR SEPTIC IN LEACHATE, AND ANAEROBIC WASTEWATER TREATMENT PONDS/ REACTORS

Day1: 30-80 ppm based on pond or reactor volume e.g. for 2 000 m<sup>3</sup> net volume of sludge or slurry, and water 60-160 kg of Bioclean Septic is recommended for the first treatment  
Week 1: 20 ppm based on average m<sup>3</sup>/d hydraulic leachate/raw wastewater load  
Week 2: 6-18 ppm based on average m<sup>3</sup>/d hydraulic leachate/raw wastewater load



Onwards: 1-8 ppm based on average m<sup>3</sup>/d hydraulic leachate/raw wastewater load to maintain the upgraded performance of the reactor.

#### DOSING LOCATION

Bioclean Septic should be added to the raw inlet, or in the first part of the anaerobic bioreactor or pond.