

BioSmart™ Bacterial Products

Drain Maintenance BioDrain

BioDrain is a blend of naturally occurring microbes that digest fats, oil, grease and other organic waste to keep grease traps, drains and waste water systems clear and should be used for maintaining trouble free drains.

The Problem

Blocked drains are caused by the presence of solidified organic waste, whether that be hair, fats, oils, greases or similar waste. Inevitably, unless treated, the build-up in drains increases, with the usual affect of creating malodours and of course, the unpleasant sight of an overflowing drain.

Once the problem has been identified, the next course of action has been to apply toxic chemicals, in the form of strong acting bleach, a known chemical brand or caustic soda, which is harmful to the drain, the environment and you.

BioSmart's Technology and General Principles

BioSmart's bacterial technology and ultimate solution completely centres around the production of "Enzymes", which, simply put, are 'biological digesters'. Enzymes work by breaking apart large complex compounds, known as 'substrates' into smaller, more easily absorbed nutrients that bacteria can absorb. Each enzyme is designed to unlock and breakdown a specific food source and therefore, a specific bacteria is required to produce the required enzyme and this is true of BioDrain.

The Product and Solution

BioDrain is a concentrated multi-strain and blend of naturally occurring microbes, carefully selected to provide a broad range of effective operating conditions. The product contains bacterial strains to digest fats, oils and greases (FOG's) and other organic waste, typically associated with grease traps and waste water systems. The organic debris is utilised by the product bacteria, so that the waste is effectively broken down at the source and not just transferred downstream.



Key product features

- Stable blend of safe Bacillus spores
- Production of high levels of multiple extra-cellular enzymes, providing a wide range of degradation capabilities, including grease, lipids, short and long chain fatty acids, cellulose, protein and starch
- Low pH effectiveness (down to pH 4.5)
- Low temperature efficacy (down to 10°C)
- Good bacterial performance in low nutrient conditions
- Ability to work under aerobic and anaerobic conditions

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Benefits of regular application

FOG's are composed of triglycerides, which are broken down by bacteria in two stages. Firstly, the molecule is broken down into glycerol and free fatty acids by the enzyme lipase. Secondly, the free fatty acids are broken down into smaller molecules using specialist enzyme pathways.

As a result, FOG levels are dramatically reduced due to the effective breakdown of triglycerides and resulting long and short-chain fatty acids, by carefully selected bacteria. The biological breakdown of FOG's is irreversible and therefore, trapped grease levels are reduced in-situ and not transferred downstream, reducing the incidence of maintenance problems and the need for grease trap pumping.

The production of odours is reduced due to the product bacteria inhibiting the production of hydrogen sulphide and from the effective break down of volatile fatty acids that may be produced in septic or anaerobic environments. The secretion of high levels of amylase, cellulase, lipase and protease enzymes by the product bacteria, results in the effective break down of all the organic components of waste associated with the drain environment. The BOD levels are dramatically reduced and correspondingly, the sewage costs are similarly reduced.

Usage instructions

To keep domestic sinks and drains clear, the product should be dosed at the rate of 50ml to 100ml per week and should be applied last thing at night.



Health & Safety

BioDrain should be handled under good house keeping practices and you should wash hands after use. The product contains naturally occurring non-pathogen microbes and should be kept away from drinking water and foodstuffs. The product is non-flammable, biodegradable, non-toxic and when used as directed, is completely safe. For best results, store product in a cool, dry place.

