



**GUS**  
DEVELOPING THE FUTURE  
EMPOWERING WOMEN



Multi-purpose bio-formulation concentrate and multi-action microbial consortium

**BIO-TORQ Drain Purge** microbial consortium demonstrates superior enzyme performance for use in multiple applications. It exhibits a broad range of degradation capabilities needed for a multi-purpose product efficacious in maintenance of drain line and grease traps, improving septic and waste degradation, and cleaning and odour control.

In their natural environment, bacteria produce hundreds of enzymes in response to the organics present in their environment. They produce extracellular enzymes that break down proteins, starches, fats, oils, greases, urine, esters and toilet tissue into smaller particles outside the bacterial cell. The bacteria then transport the smaller particles across their cell membrane for use as an energy source and for building of new cellular components. Since bacteria detect the organics present as potential food and produce specific enzymes to breakdown these organics, it is a very efficient system. Many different enzymes are required to completely breakdown a substrate.

The bacillus consortium in **BIO-TORQ Drain Purge** produces seven separate enzymes to ensure the swift degradation of key organic contaminants to ensure drain lines, grease traps, septic systems and surfaces are biologically cleaned and odours controlled. Although many bacteria can utilise these organics as food sources, it is the bacteria with the most rapid production of these enzymes that provide the most dramatic effects.

**Safety of BIO-TORQ Drain Purge:**

**BIO-TORQ Drain Purge** contains a blend of safe Bacillus microorganisms. Toxicity studies done by an independent laboratory shows that **BIO-TORQ Drain Purge** has no acute oral toxicity, no acute dermal toxicity, and no acute inhalation toxicity at maximal test dose. Acute dermal irritation and acute eye irritation studies classify **BIO-TORQ Drain Purge** as non-irritating, it does not elicit a skin sensitisation reaction.

## DATA SHEET

Benefits	Features
<ul style="list-style-type: none"><li>• <b>Drain lines and grease traps</b> – degrades and eliminates organics found in drain lines and grease traps. Regular addition of <b>BIO-TORQ Drain Purge</b> maintains a cleaner and odour-free system.</li><li>• <b>Septic and waste treatment</b> – maintains effective activity in septic systems, eliminating the need for excessive pumping. Eliminates odours caused by incomplete digestion of malodorous volatile fatty acids.</li><li>• <b>Bathroom cleaning and odour control</b> – penetrates cracks, crevices and pores of surfaces where organics accumulate, removing the organics leaving a visually cleaner surface. Provides long term odour control by removing the organics that cause odours and prevents their return.</li></ul>	<ul style="list-style-type: none"><li>• A stable consortium of safe Bacillus spores</li><li>• Production of multiple enzymes providing a wide range of degradation capabilities</li><li>• A synergistic blend that works in concert to provide superior performance across multiple applications</li><li>• Excretion of high levels of amylase, cellulase, lipase, protease, urease, esterase and xylanase enzymes</li><li>• Ability to work under aerobic and anaerobic conditions</li><li>• Single product simplicity for multi-application flexibility</li></ul>

### PRODUCT CHARACTERISTICS

Bacteria Counts :  $6,6 \times 10^8$  /ml

Bacteria Type : Bacillus consortium producing the following enzymes:

- Protease – breaks down proteins (e.g. meat, excreted/secreted proteins) into amino acids.
- Lipase – breaks down fats/grease into fatty acids and glycerol. If not broken down, fats can go rancid and lead to off-odours and blocked drains/fat grease traps.
- Amylase – starch acts as a glue for dirt – amylases catalyse the break-down of starch into sugars which are then further used as a food source by the bacillus.
- Cellulase – breaks down cellulosic material.
- Urease - catalyses the hydrolysis of urea into break-down products.
- Esterase - splits esters into an acid and an alcohol in a chemical reaction with water called hydrolysis. Esters have characteristic odours most of which are pleasant/fruity, however can also include onion/garlic and worse odours.
- Xylanase – help in breaking down plant cell walls. o What this means – the bacillus use the multitude of enzymes produced to break down the components of malodour and staining to provide microbial cleaning at the smallest level of dirt/contamination.

Salmonella : Not detected

Appearance : Clear liquid

Fragrance : Pleasantly perfumed

Shelf-life : Two years; maximum loss of 1.0 log at recommended storage condition

## DOSE RATES (Follow dilution rate)

1. **FOOD WASTE – DOMESTIC & INDUSTRIAL:** reducing blockage of drains, pipes: treatment of effluent not on main drainage: reduction of odours and general purpose cleaning.

Area	Dilution	Initial Dose Rate	Regular Maintenance Rate	Method of Application
Effluent tanks	As is	400g per typical house	100g per month	Through any convenient access point e.g. toilet
Cess Pits	As is	400g per typical house	100g per month	Through any convenient access point e.g. toilet
Urinals	As is		Spray twice daily	
Bathroom	1:9		Daily cleaning	As per cleaning method
Drains	As is	15g	15g/month	Direct

**BIO-TORQ Drain Purge** is designed as a bio-technical aid to treat organic waste material, offering the following advantages: liquefaction and reduction of solids, reduction of odour, easier disposal of waste, aids general cleaning of soiled areas, safety in operation of effluent systems, offers a viable alternative to current processing techniques using a bio-technical approach.

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