

Form: Liquid Super Concentrate Powder	Use: Wastewater & Sewage Treatment Plants Pump Stations	Dosing: Continuous Automated System Available
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GEARTH BioFlow Sewer is a proprietary treatment of specially selected bacterial and microbial strains that produce massive concentrations of digestive enzymes when introduced into wastewater and sewerage environments. It is available in liquid, super concentrate and powder form to suit varying operational requirements and dosing systems.

The physical infrastructure of a wastewater treatment plant does not digest waste — it is the enzymes produced by bacteria and microorganisms that do. GEARTH BioFlow Sewer addresses this at source by bio-augmenting the existing microbial population, helping nature perform a better microbiological function rather than relying on chemical additives that only temporarily mask the symptoms of poor digestion.

1 WASTEWATER TREATMENT CHALLENGES

Sludge Handling	The number one problem in wastewater treatment plants — greater volume means higher labour, hauling and disposal costs plus a significant carbon footprint.
Mechanical Failure	Sludge build-up increases viscosity, straining mechanical equipment and causing more frequent, high-capital repairs.
Electricity Costs	Increased sludge viscosity causes electro-mechanical systems to run at a fraction of their intended efficiency.
Downtime	Sludge-induced mechanical failure can result in total or partial plant shutdown, creating a continuing downward spiral.
Odour Pollution	Foul odours from sewer plants negatively affect community quality of life, commercial perception and property values.

2 THE SOLUTION — BIO-AUGMENTATION

GEARTH BioFlow Sewer resolves these challenges by reducing the volume of solids through bio-augmentation — the addition of biologically active bacterial seed cultures that produce massive concentrations of enzymes on a continuous, preventive maintenance schedule. This delivers an immediate reduction in hauling costs and progressively improves overall plant performance across all key cost areas. For best results, the product should be continuously dosed at the recommended rate at the inlet point of the sewage treatment plant.

3 BIOLOGICALLY ACTIVE SEED CULTURES

The bacterial enzyme-producing strains in GEARTH BioFlow Sewer are engineered to be thousands of times more active than those found in nature, and are specifically selected for their natural resistance to harsh chemicals and detergents. Cultures are uniquely derived from South African soils, giving them a natural home-ground performance advantage — metabolising faster, reproducing at superior rates and living for longer than alternatives.

4 KEY FEATURES & BENEFITS

- Hugely reduces sludge volume and solids
- Massively reduces odours from sewer and wastewater plants
- Reduces COD, BOD, Ammonia, Nitrates, Nitrites and Phosphates
- Reduces E-Coli and Faecal Coliform counts
- Reduces mechanical equipment repairs and associated downtime

- Reduces monthly plant operating and electricity costs
- Naturally resistant to harsh chemicals, bleaches and detergents
- Available in liquid, super concentrate and powder forms
- Compatible with automated dosing systems for precise 24/7 delivery

5 DOSAGE GUIDELINES

Dose Type	Product Form	Rate
Shock Dose	Liquid / Powder / Super Concentrate	0.1% to 1% of total sludge volume — apply at commencement or during severe system stress
Maintenance Dose	Concentrate (Liquid)	1 L to 5 L per mega litre of daily flow rate
Maintenance Dose	Super Concentrate	100 ml to 500 ml per mega litre of daily flow rate
Maintenance Dose	Powder	100 g to 500 g per mega litre of daily flow rate (includes nutrient pack for extra performance boost)

6 TECHNICAL SPECIFICATIONS

Physical State	Liquid Super Concentrate Powder (three forms available)
Formulation Type	Proprietary blend of specially selected bacterial and microbial strains; biologically active seed cultures producing massive concentrations of digestive enzymes
Bacterial Origin	Uniquely derived from South African soils — enhanced local performance, faster metabolism, superior reproduction rates, longer survival
Enzyme Activity	Engineered to be thousands of times more active than naturally occurring bacteria; each bacterium produces enzymes 24 hours per day
Chemical Tolerance	Naturally resistant to harsh chemicals, bleaches, biocides and anti-bacterial detergents
Treatment Zones	Can be added to any aerobic or facultative anaerobic zone; preferably dosed continuously at the inlet point
Effluent Reductions	Demonstrated reductions in COD, BOD, Ammonia, Nitrate, Nitrite, Phosphate, E-Coli, Faecal Coliforms and Odour — case study results available on request
Dosing Method	Manual or via Advanced Automated Dosing System with battery backup (liquid form); monthly liquid replacement for autonomous operation

7 STORAGE & SHELF LIFE

Shelf Life	Not Specified — contact GEARTH (Pty) Ltd for confirmation.
Storage Conditions	Store at ambient temperature, away from direct sunlight. Keep container sealed when not in use.

8 PACKAGING

Packaging not specified in source documentation. Contact GEARTH (Pty) Ltd for available pack sizes across liquid, super concentrate and powder forms.

9 ENVIRONMENTAL INFORMATION

- Bio-augmentation approach works with nature rather than against it — no harmful chemical additives.
- Reduces sludge volume, directly cutting off-site haulage costs and carbon footprint.
- Improves effluent quality — demonstrated reductions in COD, Ammonia, Nitrates, Nitrites, Phosphates, E-Coli and Faecal Coliforms.
- Naturally tolerant of downstream disinfectants and cleaning chemicals.
- EcoChoice Approved.

The information contained in this Technical Data Sheet is based on data believed to be accurate at the time of publication. GEARTH (Pty) Ltd reserves the right to update or revise specifications without prior notice. Users are responsible for determining the suitability of this product for their specific application. Always handle products in accordance with applicable health, safety and environmental legislation. Contact GEARTH (Pty) Ltd for site-specific application guidance.