GEARTH PumpFlow Pro

High Lipase Bio-Enzyme Pump & Lift Station Treatment | 7 × 10⁹ CFU/ml

Minimum CFU Count: 7 × 10⁹ per ml	**Maintenance Dose:** 1 – 5 L per million litres of daily flow	**Accreditation:** Eco-Choice Accredited | Heritage Enviro Certified

GEARTH PumpFlow Pro is a proprietary biological high-lipase enzyme-producing treatment for pump and lift stations that rapidly digests sludge, fats, oils and greases while controlling odour. Pump lifespan is increased, and electricity, maintenance and sludge haulage costs are substantially reduced.

Fats, oils and greases in pump and lift stations are a severe operational problem: grease obstructs floats, shortens pump life, increases electricity consumption, generates unbearable odour, and drives high, labour-intensive manual sludge removal costs. Grease blockages are the most prevalent cause of main sewer line blockages and sewage overflows, costing the global industry billions annually — nearly all sewer line blockages are caused by grease, not debris.

1 WHY CONVENTIONAL METHODS FAIL

The traditional approach to pump station cleaning, pumping and hauling is mechanical, inefficient and costs many tens of thousands of Rands per site on an ongoing basis, with a high associated carbon footprint. These measures never solve the problem — they are a temporary fix, and the problem recurs within a short period.

Manual unblocking in particular only transfers the grease deposit temporarily, which then redeposits further downstream.

2 THE SOLUTION

Regular automated dosing with PumpFlow Pro is the proactive route to solving the problem permanently. The product contains a proprietary blend of locally cultivated, specially selected bacteria which colonise the entire pump station and selectively secrete large concentrations of the enzymes required to digest each waste type permanently into water and carbon dioxide.

It also contains a proprietary system that penetrates, loosens and liquefies heavy grease deposits to accelerate their breakdown. Those advantages continue downstream, keeping sewer lines free-flowing and maintenance-free, and eventually manifest at the sewer plant as reduced odour, sludge removal, plant maintenance, electricity consumption and machine downtime.

3 SEWER OVERFLOWS & SPILLS

When pump stations block and raw sewage spills into suburbs, townships, rivers and harbours, it creates a significant public health hazard in the form of typhoid and cholera. Through the use of PumpFlow Pro, pathogens are controlled by Competitive Exclusion, materially mitigating the health risk from pump station overflows.

4 KEY FEATURES & BENEFITS

- High lipase enzyme output for rapid F.O.G. digestion
- Minimum CFU count of 7 × 10⁹ per ml
- Colonises the entire pump station rather than treating a single point
- Proprietary system penetrates, loosens and liquefies heavy grease deposits
- Frees obstructed floats and extends pump lifespan
- Reduces electricity consumption, maintenance and sludge haulage cost
- Keeps downstream sewer lines free-flowing
- Delivers compounding benefit at the downstream sewer plant

- Controls pathogens by Competitive Exclusion, mitigating overflow health risk
- Formulated in liquid form for precise automated dosing

5 PRODUCT SPECIFICATIONS

- Cultivated from South African soils
- Minimum CFU count: 7 × 10⁹ per ml
- EDTA free
- Eco-Choice Accredited
- Heritage Enviro Certified
- Non-corrosive, non-volatile and vapour free
- Non-oxidising
- E. coli, Salmonella and Coliform free
- Microbes are endotoxin free
- Not genetically modified and non-mutagenic

6 DOSAGE RATES

Shock Dose	0.1% to 1% of total sludge volume, if required
Maintenance Dose	1 to 5 L per million litres of daily flow rate

7 DOSING & AUTOMATION

PumpFlow Pro is formulated in liquid form to be dosed easily and automatically into the affected pump or lift station using the GEARTH Advanced Dosing System. Use in conjunction with GEARTH Sewer BioFlow for automated dosing at the sewer plant, giving continuous bio-enzyme degradation across the whole waste path — pump station, sewer lines and plant.

8 APPLICATIONS

- Municipal and private pump stations and lift stations
- Sewer lines downstream of pump stations
- Estate, industrial park and shopping centre pump stations
- Food processing and hospitality sites discharging high F.O.G. loads
- Sites with recurring grease-driven blockages or overflow history

9 TECHNICAL SPECIFICATIONS

Physical State	Liquid
Formulation Type	Proprietary high-lipase enzyme-producing bacterial blend with grease-liquefying system
Minimum CFU Count	7 × 10⁹ per ml
Culture Origin	Cultivated from South African soils
Target Contaminants	Sludge, fats, oils and greases in pump and lift stations and downstream sewer lines
Degradation By-Products	Water and carbon dioxide
Chelating Agents	EDTA free
Accreditations	Eco-Choice Accredited; Heritage Enviro Certified
Corrosivity & Volatility	Non-corrosive, non-volatile, vapour free and non-oxidising
Microbiological Status	E. coli, Salmonella and Coliform free; endotoxin free; not genetically modified; non-mutagenic
Dosing Method	Automated dosing via the GEARTH Advanced Dosing System
Recommended Companion Product	GEARTH Sewer BioFlow for the downstream plant
Country of Manufacture	South Africa

10 STORAGE & HANDLING

Storage Conditions	Store sealed at ambient temperature out of direct sunlight. Do not allow to freeze.
Handling	Formulated with bio-based, low-toxicity ingredients. Wear appropriate PPE when charging dosing equipment.

This Technical Data Sheet reflects GEARTH's current product specification and application guidance at the date of issue. GEARTH (Pty) Ltd continually develops its formulations and reserves the right to revise specifications without prior notice. Because site conditions, substrates and effluent loads vary, the user remains responsible for confirming suitability for a specific application — GEARTH technical staff are available to assist with site-specific dosing and trial protocols. Handle all products in accordance with the applicable Safety Data Sheet and South African health, safety and environmental legislation.