



# Miconovo NOVOFLOW

## Product Brochure

*A biological solution for wastewater systems – Odour control, sludge reduction and improved system performance*

Version 1.0

## Table of Contents

|                                     |   |
|-------------------------------------|---|
| Challenges in wastewater management | 3 |
| What is NOVOFLOW                    | 4 |
| What benefits will NOVOFLOW provide | 5 |
| Product Applications                | 6 |
| Product Data                        | 7 |
| Use Case – Rural Off-grid system    | 8 |
| Contact Us                          | 9 |

## Challenges in Wastewater Management

Effective wastewater management is a critical concern across industries, municipalities, and off-grid environments. Aging infrastructure, rising waste volumes, regulatory pressures, and environmental impact have made it increasingly difficult to maintain efficient, hygienic, and compliant treatment systems. Traditional chemical-based approaches are often costly and unsustainable, while sludge build-up, odours, and inconsistent performance continue to disrupt operations and pose health risks:

- **Odour Complaints:** Persistent foul odours near treatment sites can lead to community pushback, health concerns, and reputational damage.
- **Excess Sludge Disposal Costs:** High volumes of untreated or poorly digested sludge increase the frequency and expense of pump-outs, transport, and disposal.
- **Unpredictable Wastewater Composition:** Fluctuating organic loads, pH levels, and contaminant types make consistent treatment performance difficult to maintain.
- **Pathogen Control:** Pathogenic organisms like *E. coli* and *Salmonella* can persist in underperforming systems, posing compliance and health risks.
- **System Overload During Peak Periods:** Temporary surges in wastewater volume (e.g., tourist season or storm events) can overwhelm infrastructure and cause failures.
- **Reliance on Harsh Chemicals:** Many systems lean on chemical additives to manage odours and breakdowns, increasing operational costs and environmental impact.
- **Aging & Undersized Infrastructure:** Older systems or those not designed for current capacity often experience frequent blockages, overflows, or mechanical failures.
- **Difficulty Meeting Sustainability:** Operators are under increasing pressure to reduce environmental footprint, recover resources, and align with net-zero targets.



## What is NOVOFLOW

### How NOVOFLOW enhances system efficiency through targeted microbial action

NOVOFLOW is a specialised biological treatment solution, **verified organic** and designed to **accelerate the breakdown of organic matter** in sewage and blackwater systems. Formulated with a robust consortium of **beneficial microbial cultures**, NOVOFLOW digests organic waste, reduces sludge volumes, neutralises foul odours, and helps eliminate disease-causing pathogens. This 100% natural, non-toxic solution **works in harmony with nature** to restore balance to wastewater systems, whether in municipal treatment plants, septic tanks, or mobile sanitation units.

- **Microbial Colonisation & Organic Waste Breakdown** Upon application, NOVOFLOW's microbes rapidly colonise the wastewater environment, accelerating the breakdown of organic solids and reducing overall system load.
- **Pathogen Suppression Through Competitive Exclusion:** Beneficial microbes outcompete harmful bacteria such as *E. coli* and *Salmonella*, helping reduce health risks and improve effluent quality.
- **Sludge Volume Reduction** Targeted microbial activity digests suspended solids and accumulated sludge, lowering pump-out frequency and maintenance costs.
- **Ammonia & Odour Neutralisation** Promotes nitrifying microbial pathways that convert ammonia and other odour-causing compounds into harmless byproducts.
- **Improved System Flow & Efficiency** By decomposing all organic material into CO<sup>2</sup> and harmless biomass, NOVOFLOW helps restore natural flow dynamics and prevent blockages, enhancing the overall efficiency of treatment systems.
- **Eco-Friendly & Non-Toxic Action:** Free from harsh chemicals, NOVOFLOW provides a safe, sustainable solution that protects both human health and the surrounding environment.



## What benefits will NOVOFLOW provide?

NOVOFLOW enhances wastewater treatment through targeted microbial activity that works in harmony with existing systems. Designed to address core treatment challenges from odour and sludge to pathogens and inefficiency, NOVOFLOW delivers measurable results without the drawbacks of traditional chemical interventions. The result is a cleaner, more efficient, and environmentally responsible approach to wastewater management.

The following benefits make it an ideal solution for sustainable and cost effective wastewater management:

### 01 Accelerates Organic Waste Breakdown

Speeds up the decomposition of sewage solids, improving flow and reducing treatment time.

### 03 Effectively Controls Odours

Targets odour-causing compounds like ammonia and hydrogen -sulphide, improving air quality around treatment sites almost immediately

### 05 Biologically Reduces Pathogen Load

Promotes beneficial microbial dominance, naturally suppressing harmful bacteria.

### 07 Safe for Sensitive Environments

100% natural and non-toxic, suitable for use in eco-sensitive or remote locations.

### 02 Minimises Sludge Buildup

Actively reduces solid accumulation in tanks and systems, extending the interval between pump-outs

### 04 Reduces System Downtime

Fewer blockages, fewer service interruptions, and less manual intervention.

### 06 Improves Overall Treatment Efficiency

Enhances system performance across a range of conditions and infrastructure types.

### 08 Cleaner, Safer Water System

Safe, environmentally sustainable, non-GMO and proven to support long-term intense agricultural production

## Product Applications

NOVOFLOW is a **versatile biological** treatment solution suitable for a wide range of wastewater systems. Whether in permanent infrastructure or temporary setups, NOVOFLOW **enhances the breakdown of organic waste**, reduces odours, and improves system efficiency — all **without the use of harsh chemicals**. Its flexibility makes it ideal for both urban and rural environments, centralised and decentralised treatment systems, and public or private operations.



### Septic Tanks

Improves digestion of organic matter, reduces sludge buildup, and extends pump-out intervals in residential and commercial systems.

### Pit Latrines & Holding Tanks

Accelerates waste breakdown in static or slow-flow environments, making sanitation more hygienic and removing offensive odours.

### Off-Grid & Remote Sanitation Systems

Ideal for eco-lodges, campsites, and temporary accommodation, where maintenance is difficult and chemical treatments are undesirable.

### Sludge Holding Tanks

Reduces the rate of sludge accumulation, improves pumpability, and limits the need for mechanical agitation or additional treatment.

### Municipal Wastewater Treatment Plants (WWTPs)

Enhances the biological stage of treatment by increasing microbial activity, reducing sludge volumes, and accelerating odour control.

### Portable Toilets & Mobile Sanitation Units

Keeps mobile sanitation systems fresher for longer by neutralising odours and enhancing the natural breakdown of blackwater waste.

### Shipping Waste Treatment Facilities

Supports the treatment of blackwater and greywater aboard ships, reducing odours, solids, and pathogens in marine sanitation systems.

### Waste Stabilisation Ponds & Lagoons

Improves biological activity in natural or constructed treatment ponds, helping to reduce surface scum, odour, and sludge buildup.

## Product Data

### Product Composition

| CAS #         | CAS # COMPONENT            |
|---------------|----------------------------|
| Not Available | Enzyme and Microbial Blend |
| 7727-37-9     | Nitrogen                   |
| 7440-09-7     | Potassium                  |
| 7440-44-0     | Organic Carbon             |
| Not Available | Organic matter             |
| 7732-18-5     | Water                      |

### Physical & Chemical Properties

- **Appearance:** Brown
- **Odour:** Molasses like
- **Physical state:** Liquid
- **pH Range:** Optimum pH range is 6.2
- **Boiling point:** 100C
- **Solubility (H<sub>2</sub>O):** Soluble
- **Vapour pressure:** None
- **Vapour density:** None
- **Specific gravity:** Approx. 1.0g/cc<sup>3</sup>
- **Evaporation rate:** ND
- **VOC:** NA
- **Octanol/H<sub>2</sub>O Coeff.:** ND
- **Flash point:** None

### Safety

#### Handling & Storage Instructions:

**Handling Procedures:** Avoid eye contact

**Storage Procedure:** Store in cool dry area, without fluctuating temperatures. Protect containers from damage.

#### Personal Protective Equipment (PPE):

- Personal Protective Equipment: Eyes/Face – Wear goggles.
- Personal Protective Equipment: Skin – Use impervious gloves.
- Personal Protective Equipment: Respiratory – If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

#### First Aid Measures:

- **Eyes:** Check for and remove any contact lenses. Immediately flush with plenty of water for at least 15 minutes. Get medical attention if irritation persists.
- **Skin:** In case of contact, wash off with water.
- **Ingestion:** The product will produce an emetic effect.
- **Inhalation:** Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulties.

**Full Material Safety Data Sheet (MSDS):** MSDS is available separately

## Use Case

### Rural Off-Grid System

#### The Challenge

A rural property with an ageing septic tank system was experiencing **persistent odour** issues, frequent blockages, and increasing sludge build-up that required costly pump-outs every few months. The system serviced a four-person household and had become inefficient due to the accumulation of organic waste and an imbalance in **microbial activity**. Chemical additives had been used previously, but they offered only short-term relief and did not address the root of the problem.

#### A Proven Solution with NOVOFLOW

The property owner turned to **NOVOFLOW** as a **long-term**, biological alternative to restore the system's natural balance. After an initial consultation, NOVOFLOW was introduced into the septic tank through the toilet system, with follow-up treatments scheduled to maintain microbial activity.

#### How NOVOFLOW worked in this setting

NOVOFLOW's tailored blend of live microbial cultures began breaking down the organic matter that had accumulated within the tank. These microbes digested solids, liquefied sludge, and **outcompeted harmful bacteria**, restoring a healthier microbial environment. Odours were noticeably **reduced within hours** of application, and within weeks the sludge volume had dropped significantly, extending the time between pump outs and improving system flow.



Image: Illustration of NOVOFLOW at work in a domestic septic tank

#### Real-World Validation

Over a three-month monitoring period, the property owner reported:

- A 100% reduction in odour
- No blockages or overflows
- A visible decrease in sludge level
- No need for pump outs during the treatment window

The property's service provider confirmed improved tank performance and recommended continued maintenance doses of NOVOFLOW periodically to sustain results.

# ENVIROVERDE®

As the authorised distributor of Micronovo UK, Enviroverde provides environmentally friendly, microbial based products in Europe.

Join us in transforming environmental remediation through science and sustainability.

Contact us @:



[www.enviroverde.eu](http://www.enviroverde.eu)



+351 912529904



[info@enviroverde.pt](mailto:info@enviroverde.pt)

**Disclaimer:** The information provided in this brochure is intended for general guidance only. While Enviroverde, a trading name of HortiPlus LDA and an authorised distributor of Micronovo products, has taken reasonable care to ensure the accuracy and reliability of the information at the time of publication, no warranties or representations, express or implied, are made regarding its completeness, accuracy, or suitability for any particular purpose.

Product performance may vary depending on specific environmental conditions, application methods, and individual use cases. We strongly recommend that users carry out their own assessments to determine the suitability of the product for their particular circumstances, and to seek professional or technical advice where appropriate.

Neither Enviroverde, HortiPlus LDA, nor any of its employees, agents, or affiliates shall be held liable for any loss, damage, or adverse consequences arising directly or indirectly from the use of, or reliance on, the information contained in this brochure.

By purchasing or using our products, the user acknowledges and accepts full responsibility for appropriate handling and application, compliance with local laws and regulations, and any resulting outcomes.

All product specifications, claims, and recommendations are subject to change without prior notice.

Copyright © 2025. All rights reserved