



# **MIRACLE IN WATER**

Nurturing the Nature



# Odor Management



Our odor management systems have liquid dispensers incorporated into them. These are cost-effective and can easily be installed within your residential, commercial, or industrial facilities

MIW is an advanced water treatment technology which instantly neutralizes organic odors and volatile organic compounds (VOCs), offering exceptional odor control and reduction of VOC emissions.

MIW is a highly concentrated liquid biocatalytic agent with extraordinary oxygen transfer capabilities. MIW will treat the entire spectrum of organic waste odor issues.

## Benefits

- Neutralizes all noxious odors on contact.
- Reduces VOC emissions, including greenhouse gases.
- Accelerates composting rates.
- Promotes aerobic biological conditions.
- Effective at high dilutions in misting, spray and drip systems.
- Suitable for drain lines, garbage chutes, grease traps, garbage trucks, conveyor belts, bio-solids, dewatering, food waste processing, landfills, and recycling facilities.
- Safe and green.

# Lake Remediation



MIW increases water clarity and eliminates mineralization and biofilm (slime) buildup. MIW greatly improves the performance of nearly all treatment systems used to purify water, including municipal water systems, agricultural irrigation systems, aquaculture ponds, rivers, cooling towers, lagoons, pools and hot tubs. MIW has distinct and proven technical advantages over any other water treatment chemistry.

The two key factors which affect water quality are the amount of dissolved oxygen and the amount of organic wastes. The higher the dissolved oxygen, and the lower the amount of organic wastes, the cleaner and clearer the water.

MIW, through the power of microbubble oxygen transfer, increases the levels of dissolved oxygen and rapidly breaks down organic wastes, slime and mineralization. This dramatically increases the water quality. MIW is also extremely effective at removing odors. Odors in water bodies are caused by low oxygen levels, organic waste, biofilm, pathogens, and decomposing organic matter. By increasing dissolved oxygen and breaking down organic matter, MIW eliminates the underlying causes of odor. By the same process, MIW also eliminates the buildup of mineralization and biological film growth within water lines and tanks.



## Benefits

- Clarification of water.
- Reduction of sanitizing chemicals.
- Reduction of waste by-products remaining in water column.
- Reduction of chemical odors (VOCs).
- Elimination of mineralization buildup.
- Elimination of organic growth and biofilms

# Waste Water Treatment



## Waste Water Treatment Solutions

MIW products improve treatment of water and waste, while saving time and money. MIW immediately increases dissolved oxygen and breaks down biofilm / fats / oils / greases -- the two biggest challenges in treating water and waste. This reduces aeration energy, nitrogen levels, sludge volume and odors. MIW is completely safe and green.

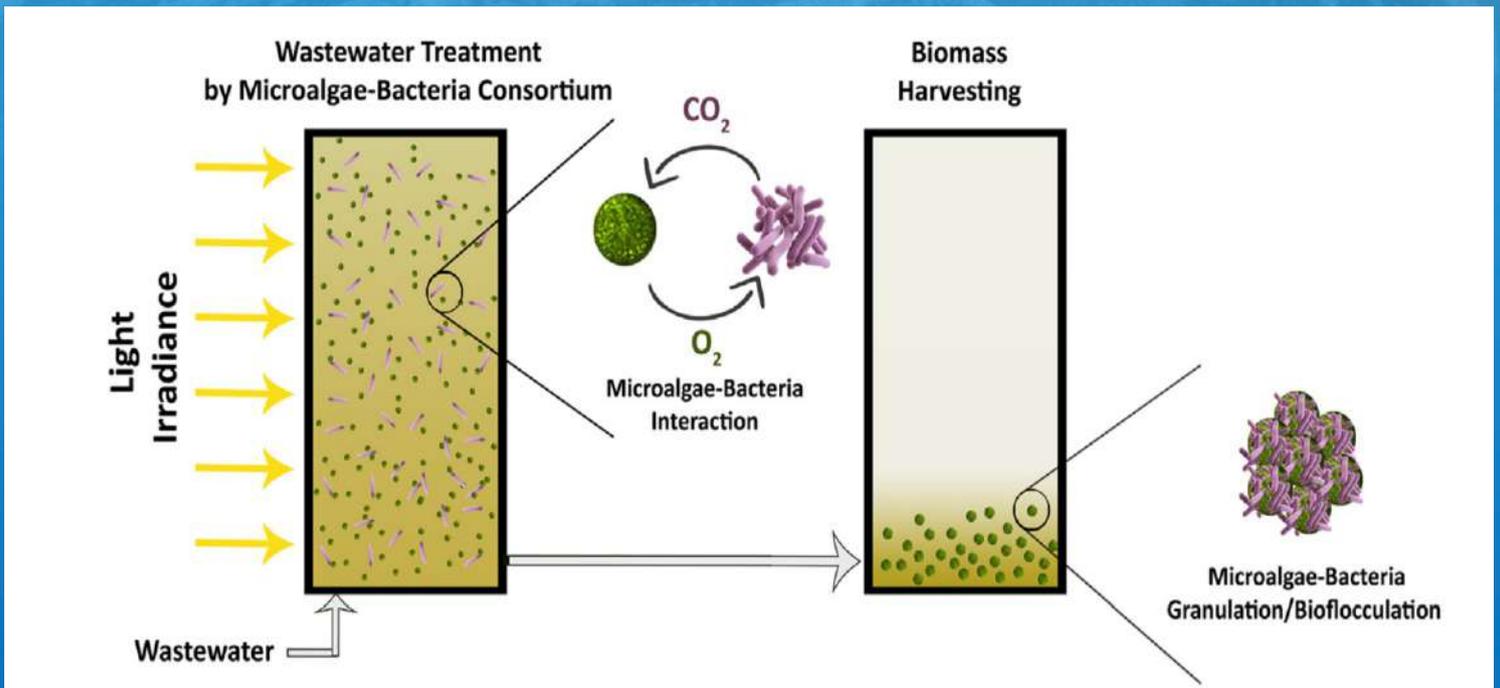
## Benefits

- **Increase Dissolved Oxygen:** MIW, through its unique chemistry, produces highly reactive micro-bubbles. Unlike normal bubbles, which have shells that are “hard” and very difficult for gas to penetrate, MIW micro-bubbles have loose “porous” shells. This allows for very rapid oxygen transfer into the water column.
- **Break Down Biofilm, Fats, Oils, Greases:** MIW micro-bubbles attach themselves to the protective microbial structure of biofilms. A rapid gas transfer then breaks the long molecular bonds of the biofilms and causes them to dissolve.
- **Increase Aeration Efficiency:** By adding MIW into the aeration stream, highly reactive MIW micro-bubbles form and dramatically increase the transfer of oxygen into the waste. This causes higher levels of dissolved oxygen and reduced aeration time, which can reduce electricity usage up to 30%.
- **Eliminate Floating Grease Layers:** MIW breaks down the fats, oils and greases that cause floating layers.
- **Breakdown “Fatbergs”:** By spraying water mixed with MIW over a fatberg, it will rapidly dissolve.



- Reduce VOCs: MIW reduces Volatile Organic Compounds (VOCs) by up to 90+%. This includes Hydrogen Sulfide, Ammonia, Amines, Ketones and Mercaptans.
- Reduce Sludge Volumes: MIW increases the breakdown of organic matter, causing total sludge volumes to decrease significantly. This reduces cost of processing, dewatering and transport.
- Improve Sludge Quality: Sludge treated with MIW is more completely broken down and therefore of a higher quality.
- Reduce BOD, TDS and COD: Three key operating parameters of wastewater treatment systems are BOD (Biological Oxygen Demand), TDS (Total Suspended Solids) and COD (Chemical Oxygen Demand). MIW significantly reduces all three.
- Reduce TKN / Nitrogen Discharges: MIW enhances nitrification, thus reducing TKN (Total Kjeldahl Nitrogen -- Nitrogen and Ammonia) and nitrogen discharge levels.
- Active Pre-Treatment Of Sewage: When added to a collection system at key junction points, MIW cleanses the collection system of odors, slime and fats/oils/greases. This also reduces the load on the downstream waste processing plant.
- Reduce Oxidation Chemicals: Because MIW increases dissolved oxygen levels, there is reduced or no need for oxidation chemicals.
- Cleans concentrated animal feedlot operations (CAFO) lagoons.
- Reduce H<sub>2</sub>S / Odors: MIW massively reduces H<sub>2</sub>S emissions, in some cases by over 90%.
- Increase Discharge Quality: MIW breaks down organic matter in the waste streams, making them less polluting.
- Increase Waste Throughput: MIW increases the conversion and breakdown of waste, enabling the plant to process more waste at a lower cost.
- Reduce Capital Expenditures: Because MIW enables the plant to process more waste at a lower cost, the plant managers/owners can postpone or avoid building capacity expansion additions.
- Increase Safety: MIW is green and safe. MIW requires no special equipment or capex or protective clothing.
- Easy To Use: MIW is easy to use – simply add to water. Standard dosage is 1ppm per 100 BOD.

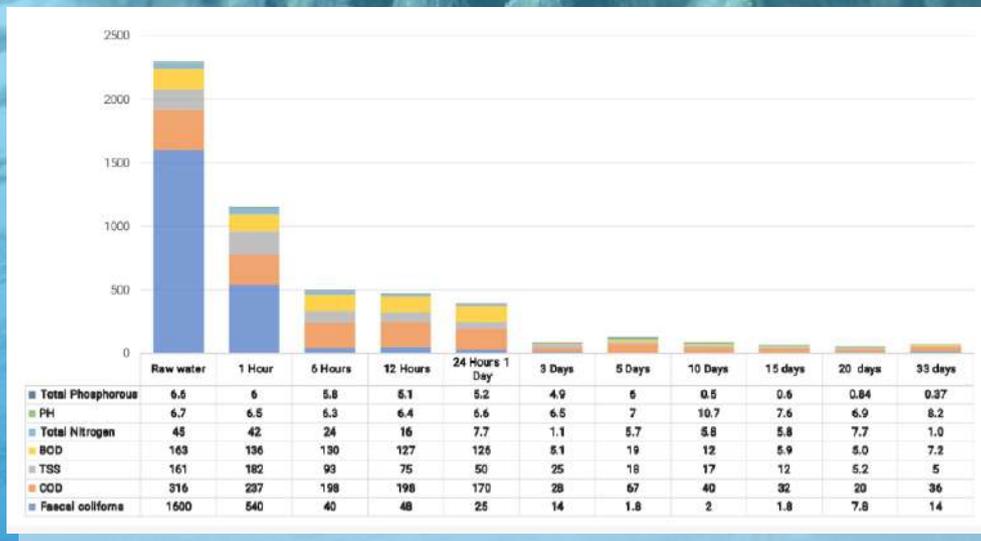
# Mechanism of Action



Symbiotic Association of Bacterial and Algal culture



# MIW Contact Time in Raw Sewage Water



## Material Safety Data Sheet

MATERIAL SAFETY DATA SHEET		
according to Regulation (EC) No. 1907/2006 (REACH)		
according to Regulation (EU) No. 2020/875		
Material Name: MIW Bacterial Consortium	Document Number: PU/MSDS/SPL/0858	
Effective Date: 21/03/2024	Total Page: 9	
1. Identification of the substance/preparation and the company		
Trade Name:	MIW- Algal-bacterial consortium	
Utilization:	<ul style="list-style-type: none"> <li>MIW Bacterial Consortium is a Bacillus Bacterial mixture that reduces the BOD (Biological Oxygen Demand) in sewage water.</li> <li>The regular application of MIW removes the foul odor (hydrogen Sulphide &gt;10 ppm) and lowers the count of faecal coliforms.</li> <li>MIW reduces the COD (Chemical Oxygen Demand) and liberate nutrients by breaking the sludge.</li> <li>MIW is an eco-friendly water cleanser that sustains the Green environment at Cheaper Cost.</li> </ul>	
Company Name:	MIW WATER SOLUTIONS PRIVATE LIMITED	
Contact Information (Head Office):	Principal Address: G2, SIDCO INDUSTRIAL ESTATE, Korakkudi, Sivaganga, Tamil Nadu, 630001 Emergency contacts : +91 8050577777 Email : <a href="mailto:miwwater@gmail.com">miwwater@gmail.com</a>	
2. Hazards Identification		
Emergency Overview: The substance or mixture is not classified as hazardous according to the Globally Harmonized System (GHS).		
Signal Word	None	
Hazard Pictogram	None	
Prepared By	Checked By	Approved By
Raju Kumar Singh	 SARITA YADAV Compliance Manager, Professional Utilities	Digitally signed by SARITA YADAV Date: 2024.03.19 09:55:11 +05'30'



# Accomplishments & Applications...

## Stinking decanting station gets a pleasant makeover

### Microorganisms Reduce Biochemical Oxygen Demand

Deepak Karthik  
@timesgroup.com

**Trichy:** As a relief for morning walkers and college students using Racecourse Road near Anna sports stadium, the corporation has abated the foul smell from Khajamalal decanting station where faecal waste is dumped through bioremediation using organic bio-stimulants. A low-cost dosing plant injecting beneficial microorganisms has been installed in the waste collection centre to get rid of the smell. Further, the civic body plans to use natural extracts to spread a pleasant fragrance around the centre.

The corporation is using underground drainage pumping stations in Khajamalal, Vayalur Road and Pookollai as decanting stations to dump faecal waste collected by septic

### TACKLING FOUL SMELL

Station capacity | 25 MLD

Trucks using the station | 30-35 

Operating hours | 5 am to 8 pm

Organic micro organism solution added | 700 litres per day

**ARTIFICIAL FRAGRANCE IN CONSIDERATION**

> Lavender, Lemon grass



**CLEAN UP:** The Bioremediation plant installed inside the decanting station in Khajamalal

#### LIST OF DECANTING STATIONS IN TRICHY

> Khajamalal, Vayalur Road

> Pookollai, Srirangam

tank cleaners. The centres serve as safe disposal venues for the desludging operators to dump the faecal waste collected from septic tanks in areas where UGD is unavallable. During the process of dumping the faecal into a massive well that pumps sewage to the treatment plant in Panjapur, foul smell emanates, causing

inconvenience to morning walkers visiting Khajamalal Anna stadium. Students visiting colleges nearby are also affected. As a solution, the corporation through a Chennai-based waste management firm has installed a dosing plant in the decanting station. The plant, using a drip irrigation system, injects cultured

microorganisms into the sewage well reducing the biochemical oxygen demand (BOD) and removing hydrogen sulphide that causes foul smell.

Throughout the operation, beneficial microorganism solution is injected periodically to neutralise the bad odour. Around 3 litres of bio-stimulants are added to 500-700 litres of water and injected into the sewage tanks. "The sustainable process using organic products neutralises E Coli bacteria too," Stephen K Raj, director and CEO, of Dew Drop Technologies, the implementing agency said. Shopkeepers and regular walkers in the Khajamalal area said foul smell has not been felt in the recent days. Corporation officials said that they are studying the working of bioremediation process for a week now.

TIRUCHIRAPPALLI CITY CORPORATION

ZONE - IV

Name of the Work : Operation & Maintenance of the Odor Removal Dosing Unit in Anna Stadium UGD HT Pumping Station for five months

Estimate Amount : Rs. 18,10,000/-



# Accomplishments & Applications..

Trichy Commissioner and EE officials visit



# Accomplishments & Applications...

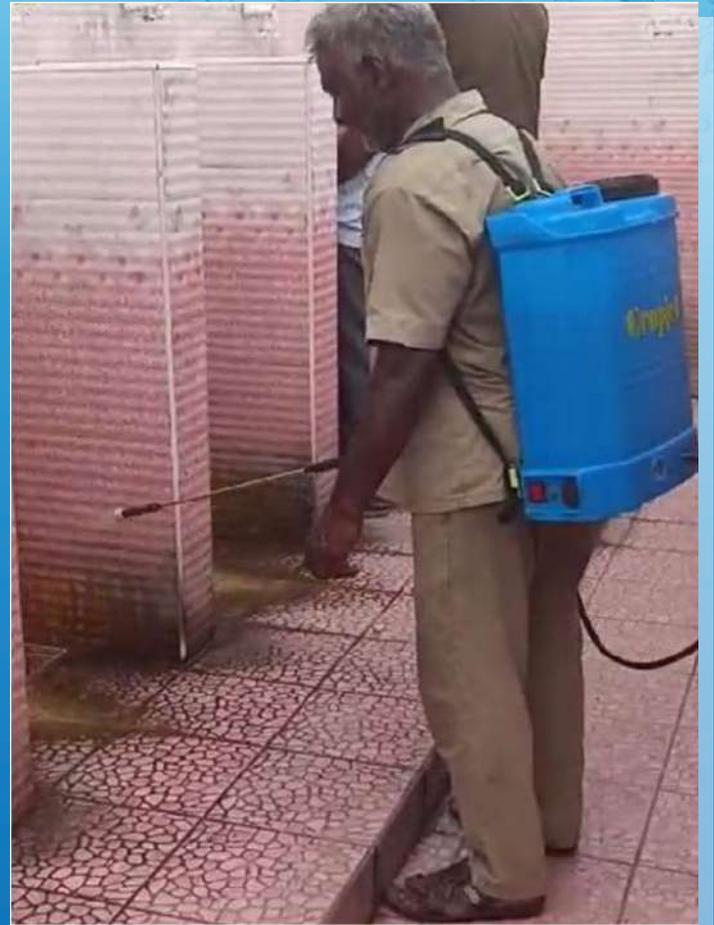


MIW - Dosing unit



MIW - Application in Tirunelveli

# Accomplishments & Applications.. MIW taking care in public sector



Thuraiyur Bus Station

# Accomplishments & Applications.. MIW taking care in public sector



Thanjavur Bus Terminal



# Certificate of Registration

**ISO 14001:2015**

*Certificate of Registration*

This is to Certify That  
Environmental Management System of

**MIW WATER SOLUTIONS PRIVATE LIMITED**  
G2, SIDCO INDUSTRIAL ESTATE, KARAIKUDI, SIVAGANGA-630001,  
TAMIL NADU, INDIA.

has been assessed and found to conform to the requirements of  
**ISO 14001:2015**  
for the following scope :

TREATMENT OF WASTE WATER OR SEWER BY MEANS OF PHYSICAL,  
CHEMICAL OR BIOLOGICAL PROCESSES.

Certificate No : 23MEEOB50  
Initial Registration Date : 21/10/2023 Issuance Date : 21/10/2023  
Date of Expiry : 20/10/2026  
1st Surve. Due : 21/09/2024 2nd Surve. Due : 21/09/2025

**DIRECTOR**  
Magnitude Management Services Pvt. Ltd.

**QUALITY MANAGEMENT SYSTEM**

*Certificate of Registration*

This is to Certify That The Quality Management System of

**MIW WATER SOLUTIONS PRIVATE LIMITED**  
G2, SIDCO INDUSTRIAL ESTATE, KARAIKUDI, SIVAGANGA-630001,  
TAMIL NADU, INDIA.

has been assessed and found to conform to the requirements of  
**ISO 9001:2015**  
for the following scope :

TREATMENT OF WASTE WATER OR SEWER BY MEANS OF PHYSICAL,  
CHEMICAL OR BIOLOGICAL PROCESSES.

Certificate No : 23DQJLS79  
Initial Registration Date : 09/10/2023 Issuance Date : 09/10/2023  
Date of Expiry : 08/10/2026  
1st Surve. Due : 09/09/2024 2nd Surve. Due : 09/09/2025

**DIRECTOR**  
ROHS Certification Pvt. Ltd.

**ISO 45001:2018**

*Certificate of Registration*

This is to Certify That  
Occupational Health & Safety Management System of

**MIW WATER SOLUTIONS PRIVATE LIMITED**  
G2, SIDCO INDUSTRIAL ESTATE, KARAIKUDI, SIVAGANGA-630001,  
TAMIL NADU, INDIA.

has been assessed and found to conform to the requirements of  
**ISO 45001:2018**  
for the following scope :

TREATMENT OF WASTE WATER OR SEWER BY MEANS OF PHYSICAL,  
CHEMICAL OR BIOLOGICAL PROCESSES.

Certificate No : 23MEEOJ49  
Initial Registration Date : 21/10/2023 Issuance Date : 21/10/2023  
Date of Expiry : 20/10/2026  
1st Surve. Due : 21/09/2024 2nd Surve. Due : 21/09/2025

**DIRECTOR**  
Magnitude Management Services Pvt. Ltd.

# Thank You



# **MIW WATER SOLUTIONS PVT LTD**

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