

BiOWiSH™ POME

Palm Oil Mill Effluent Ponds

Palm Oil Mill Effluent (POME) treatment systems tend to use large volume sequential pond arrangements to provide long hydraulic retention times (>90 days) allowing natural biological degradation to take its course. This leads to very inefficient organic degradation. BiOWiSH™ POME delivers an easily implemented solution to most of the typical operational problems these systems face.

What is BiOWiSH™ POME?

BiOWiSH™ POME is a proprietary composite biocatalyst that enhances a broad range of hydrolytic, oxidative and reductive biochemical reactions. The product contains a novel consortium of metabolically cooperative microorganisms, with endogenous and exogenous enzymes, and small molecule metabolic cofactors. BiOWiSH™ products are composed of all natural materials and are non-genetically modified.

Product Benefits

- Accelerates the decomposition of organic waste (sludge)
- Preserves pond hydraulic capacity and treatment outcomes
- Degrades surface crust to improve pond natural aeration
- Reduces odor emissions



How will I know BiOWiSH™ POME is working?

The collection of data is critical to tracking the progress of BiOWiSH™ in meeting key objectives. We recommend that before implementing a program of dosing, first establish a thorough baseline to measure against. You should consider tracking the following parameters dependent on the application:

- Sludge depth and volume
- Total Kjeldahl Nitrogen (TKN)
- Total Suspended Solids (TSS)
- Anecdotal odor measurement

How safe is BiOWiSH™ POME?

BiOWiSH™ POME has no detrimental effects on the environment, humans, plants or animals. The core technology behind BiOWiSH™ products is also used in human ingestible supplements, animal feed additives and crop enhancement products also produced by BiOWiSH Technologies. Environmental toxicology studies have shown no adverse effects from the use of BiOWiSH™ products. Aquatic toxicity testing has shown that BiOWiSH™ is non-toxic at recommended dosage levels.

Does BiOWiSH™ POME build-up in the plant or discharge locations?

No. Unlike some other water quality conditioning agents BiOWiSH™ will not build-up over time. BiOWiSH™ is 100% biodegradable which prevents any long-term build up.

Dosing Recommendations

The following recommendations are based on a system using a primary oil-water separator and a primary pond for cooling and pH stabilization purposes. For different systems please contact wastewater@biowishtech.com.

Start-up Dosing

For systems with large amounts of accumulated sludge or systems failing to meet discharge limits, commence with 10 ppm shock dose to all pond (after primary cooling stage). Apply dosage to each pond based on pond volume.

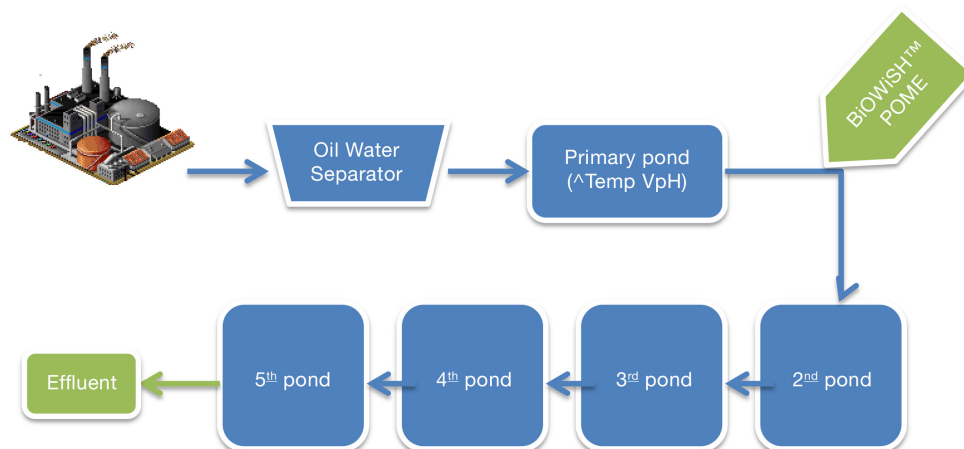
Maintenance Dosing

BiOWiSH™ POME	Effluent production used as basis	Target concentration
5.0 kg/week	1,000 m ³ /week	5.0 ppm

General Application Instructions

Simply add BiOWiSH™ POME Treatment powder concentrate directly or mix with water and apply. The powdered concentrate or water pre-mix can be added directly to the pond inflow, or at any point in a canal to ensure dispersion throughout the pond. Powder must enter the water—do not dry apply to surface crust.

When dissolving the powder into water, use a minimum of 5 litres of water per 1kg of BiOWiSH™ POME. Depending on volume delivered, a clean bucket delivered by hand is an acceptable method. For higher volume applications a drum or tank with outlet valve and hose to allow gravity drip-feeding into the pond feed is ideal.



Contact

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