



Water & Environmental Technologies

# BioSpikes® 5000

## General Industry

Reduce Dredging Frequency and Costs and Improve System Efficiency in Wastewater Lagoons

High sludge levels are a source of concern for many municipal and industrial wastewater lagoon operations. The high sludge levels affect the treatment capacity, and dredging is a costly operation.

BioSpikes® 5000 offer a new way to minimize settled sludge volume and reduce solids handling costs in wastewater lagoons. BioSpikes 5000 are formed as dense spikes that rapidly sink to the bottom of a lagoon, even when applied at the water's surface. This makes dosing easy and ensures contact between the specialized microorganisms and the sludge. Additionally, BioSpikes 5000 can be easily applied to problem buildup areas to eliminate short-circuiting.

When BioSpikes 5000 sink to the bottom of the lagoon, they release billions of microorganisms, powerful enzymes, and essential micronutrients directly into the sludge layer. This combination ensures rapid stimulation of biological activity and reduction of the sludge layer. This reduces the dredging frequency, increases hydraulic retention time, and improves overall lagoon performance.

## The Benefits of Using BioSpikes® 5000

### Lower operating costs

- Reduces dredging frequency
- Reduces volume of sludge to be dredged

### Improved plant efficiency

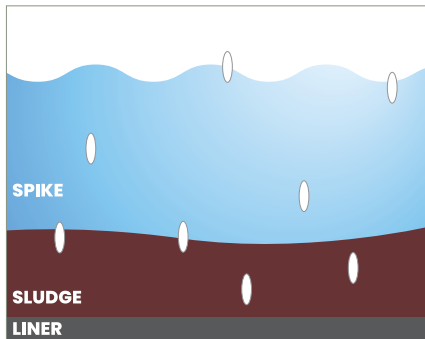
- Improves hydraulic retention time
- Increases operating lagoon time
- Minimizes short-circuiting

### Simplified operations

- Can be applied directly to hot spots
- Reduces sludge without interrupting treatment

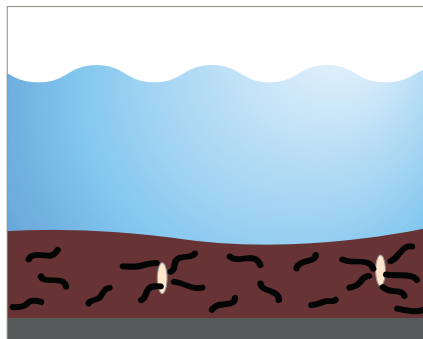
# Treatment Process

## Start of Treatment



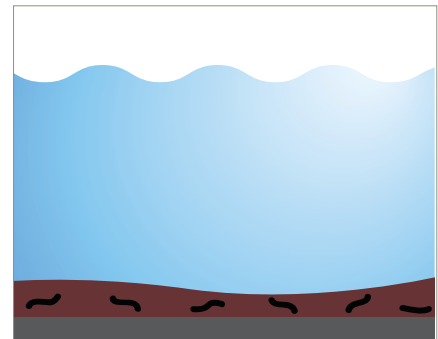
**Fig. 1** BioSpikes® 5000 are dropped at the water's surface and sink directly into the sludge layer.

## During Treatment



**Fig. 2** Microorganisms, nutrients, and enzymes permeate throughout the sludge layer.

## After Treatment



**Fig. 3** Microorganisms, enzymes, and nutrients stimulate biological activity and reduce the sludge layer.

## Micro Solutions. Major Impact.

Clean water is essential for healthy people and a healthy planet. EnviroZyme's microbial solutions use bioaugmentation to naturally and efficiently treat water before it's returned back into the system. Our team of experts have come together to create environmentally-focused microbial solutions and technical services to support water resource recovery facilities in their global quest to provide clean water.

## Billions of microorganisms at your service.

SKU #	PRODUCT	BENEFITS	SIZE
Biological Lagoon Treatment			
WTS971S18	BioSpikes® 5000	BioSpikes® 5000 are formed as dense spikes that rapidly sink to the bottom of a lagoon, even when applied at the water's surface.	125x150 G



400 Van Camp Road  
Bowling Green, OH 43402

1690 Huron Church Road, Suite 169  
Windsor ON N9C0AC CA

EnviroZyme France S.A.S.  
43 rue de Liège  
75008 Paris, France

800.232.2847 | [envirozyme.com](http://envirozyme.com)  
[customerservice@envirozyme.com](mailto:customerservice@envirozyme.com)

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