



FIRE ECO HAZARD PREVENTION CONTROL SUPPRESSION

TWIN REACTOR MBR300A

Biological Water Treatment System

Environmentally-friendly composition / Accelerated biodegradability / Safe and effective

The Bioversal TWIN REACTOR is an ultracompact, process-integrated system that achieves the extremely high biodegradation of oil pollution in process-water. The very short start-up stage and adaptation time make this system operational quickly and easily, and extremely reliable at the same time.

The unique operating mechanism in the related Bioversal oil-cleaning products is the decisive factor in this breakthrough in the area of cleaning waste water and process water. It results in completely new possibilities and uses in the biological

cleaning of process water polluted with contaminants such as oil, fats, motor fuels, PAHs and PCBs.

This system can be supplied as a fully tailor-made solution and with a flow rate of 0.3 m³ to 20 m³ per hour. The self-contained and compact construction means the system takes up little room. It can be delivered in mobile or permanently-positioned variants.

The absolute precondition for optimal efficiency from the Bioversal TWIN REACTOR is use of Bioversal oil-cleaning

agents in the cleaning process beforehand. It is only in this way that the unique operating mechanism in these products enables the Bioversal TWIN REACTOR to realize the results listed overleaf.

 **Bioversal**
in association with nature
Advanced Bio-Technology Applications



The virtues of Bioversal® show up to best advantage through deployment of the mobile TWIN REACTOR SYSTEM that we use to clean waste water for recycling or discharge.

LOAD VALUES

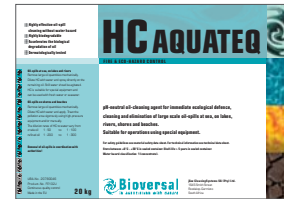
Flow rate	1.000 l/hr
Pollution percentage	1.000 mg/l (water)
Output value	< 20 mg/l (water)
Biodegradation	> 98%

Incoming water requirements

Oxygen content	> 3 mg/l
pH value	5.5 - 8
Temperature	15 - 38°C
Dimensions	300 L x 140 W x 200 H cm

Water-based Bioversal oil-cleaning agents are the new standard for cleaning in the industrial and cleaning-service sectors. These revolutionary agents sharply accelerate the biodegradation of pollution. This unique characteristic makes them powerfully effective, safe and environmentally friendly.

The products themselves are also highly biodegradable, surpassing the highest OECD standard (OECD 301). Following completion of the biodegradation process, only CO₂ and water are left behind. This means that Bioversal oil-cleaning agents are not harmful to the natural environment. Thanks to their environmentally-friendly composition, they can be discharged without problems into a biological water-treatment plant. They will even speed up biodegradation there.



BIOVERSAL contains biodegradable and eco-compatible surfactants optimized by the unique BIO-ACTIVATOR, which catalyzes and accelerates the natural self defense and regeneration mechanisms of the Ecosystem. BIOVERSAL protects, supports and enhances autochthone bacteria in their natural process of microbiological degradation of toxic hydrocarbon complexes during and after Ecological Hazards. The natural residual products CO₂ and H₂O ultimately remain as the end product of the degradation process. Bioversal's multifunctional Biotechnology products redefine the term Biodegradability. Not only that our products are environmentally friendly and surpass demanding international environmental regulations, but the application of our products transforms toxic Hydrocarbons C_n, PAH, BTEX into a feasible and accelerated Biodegradation Job, making NATURE YOUR ALLY.



Bioversal® is also the designation for a series of high-quality oil-cleaning agents. All these products are composed of environmentally safe biochemical ingredients and accelerate the biodegradation of pollution with the assistance of the microorganisms that occur everywhere in nature. It is exactly because of this environmentally-friendly approach that the cleaning process is so highly effective.



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