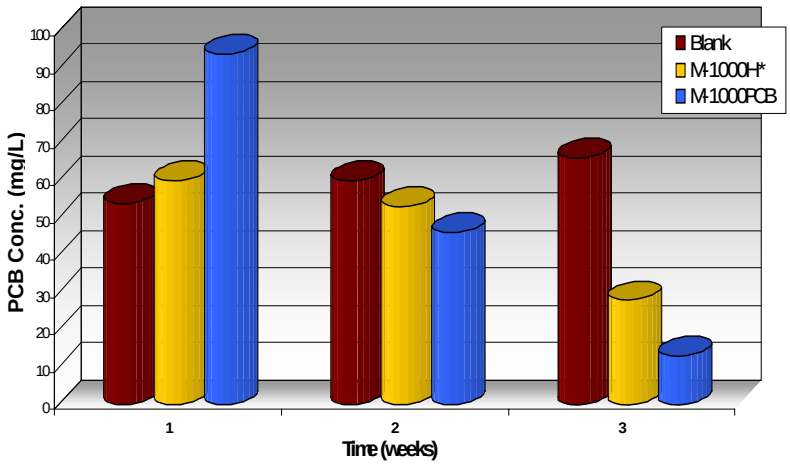
Bioremediation Focus

Municipal Electric Utility Tests Biological for PCB Degradation

CENTRAL TEXAS / CaseWire/ -- Tests conducted by a municipally-owned electric utility showed a rapid degradation of PCBs using a new bio-product developed by Micro-Bac International Inc.

The city utility had, over the course of several years, accumulated a substantial amount of waste transformer oil and sludge containing the PCB compound Arochlor-1254. The presence of the Arochlor-1254 created problems with respect to disposing of the waste oil and sludge. City officials were in need of a low-cost option for degrading the PCBs in the oil and sludge so that the material could then be disposed of in full accordance with federal, state, and local regulations.

The city's utility's analytical laboratory evaluated the effectiveness of two separate bioremediation products available from Micro-Bac. Identical samples of the waste transformer oil containing Arochlor-1254 were added to separate 4-liter glass containers, dosed with Micro-Bac products, covered with Para-film, and continuously aerated for a three-week period. At weekly intervals, each of the flasks was sampled and analyzed for PCBs using EPA method 608. The results of this study are as follows:



The results of the study indicated that, over a 3-week period, Micro-Bac's M-1000PCB product supplemented with OSNF#1 formulation reduced the level of PCBs in the waste transformer oil by 86%. The study was terminated after 3 weeks, so the point at which 100% degradation of PCBs was achieved was not determined.

It is clear that Micro-Bac's M-1000PCB microbes are capable of rapidly degrading Arochlor-1254. For over two decades, Micro-Bac International has been developing safe and effective products for the environment, which are routinely verified though independent testing. The company produces a full line of products custom-formulated for specific waste treatment and contamination problems. Micro-Bac also provides full analytical and technical support for all its products.

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