



Journal of Applicable Chemistry

2013, 2 (4):876-881

(International Peer Reviewed Journal)



Biodegradation of Methylparathion by microbial consortium

K. Barathidasan*¹ and D. Reetha²

1. Department of Microbiology, Faculty of Science, Annamalai University, Annamalai Nagar, Tamilnadu, **INDIA**

2. Department of Microbiology, Faculty of Agriculture, Annamalai University, Annamalai Nagar, Tamilnadu, **INDIA**

Email: drbaruphd@gmail.com

Received on 12th June and finalized on 19th June 2013.

ABSTRACT

In the present study degradation of methyl parathion was tested using a bacterial consortium obtained by selective enrichment from highly contaminated soils. Microorganisms identified in the consortium were Brevibacillus agri and Pseudomonas sp, in culture medium enriched with methyl parathion, the consortium was able to degrade 500 mg/l of methyl parathion in 4 days. During the degradation intermediate metabolite p-nitrophenol was identified by HPLC method. Finally p-nitrophenol was completely disappeared within 5 days. Results of this present investigation confirmed the complete mineralization methyl parathion in the liquid medium. This consortium is used to remediate the methyl parathion contaminated sites.

Keywords: Methylparathion, *Pseudomonas* sp, *Brevibacillus agri*, Consortium, Biodegradation.
