Environmental Engineering and Management Journal

April 2010, Vol. 9, No.4, 553-558
http://omicron.ch.tuiasi.ro/EEMJ/

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PREPARATION AND CHARACTERIZATION OF ENCAPSULATED FERTILIZER

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Abstract

A polymer encapsulated fertilizer, in urea-formaldehyde matrix, was prepared and tested. The fertilizer was obtained in solid form, through a two-stage process, and was tested for activity index and degree of leaching in soil. Analyses were performed using modern techniques, such as 1H-NMR, FT-IR or SEM. The process leads to high yields of microcapsules, both in terms of quantity of microcapsules and content of nutrients. The product presented very good characteristics for use in controlled fertilization.

Key words: controlled release, environment protection, fertilizer, urea-formaldehyde

Received: February, 2009; *Revised final:* April, 2010; *Accepted:* May 2010

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