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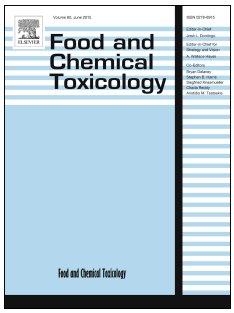

Quality challenges associated with microbial-based cleaning products from the industry perspective

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Quality challenges associated with microbial-based cleaning products from the Industry Perspective

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Abstract

Microbial-based cleaning products (MBCPs) continue to gain popularity in the market as environmentally friendly cleaners. The majority of these products contain spores of various *Bacillus* species. Although the microorganisms used in MBCPs are subject to regulation in Canada under the Canadian Environmental Protection Act, the products themselves are not. Unlike other types of microbial products such as probiotics and biopesticides, the use, manufacture and quality parameters of MBCPs in Canada and other countries are poorly defined and not specifically subject to any required standards.

Due to their complexity and nature, these products feature unique quality challenges. We noted the existing MBCPs we analyzed vary vastly in quality; external microbial contaminants, viability of the spores and the biocompatibility of the ingredients are issues that greatly affect product quality. A proper taxonomic identification of the bacterial species used also seems to be a major challenge for a number of manufacturers.

A good understanding of the mechanisms governing these quality challenges and the adoption of good practices for the cultivation, harvesting, formulation, and manufacture