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What is the Microorganism in Waste Management?

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Abstract

Due to a wide range of industrial and agricultural activities, a high number of chemical contaminants is released into the environment, causing a significant concern regarding potential toxicity, carcinogenicity, and potential for bioaccumulation in living systems of various chemicals in soil. Although microbial activity in soil accounts for most of the degradation of organic contaminants, chemical and physical mechanisms can also provide significant transformation pathways for these compounds. Phytoremediation, with the associated role of rhizosphere microorganisms, is therefore an important tool in bioremediation processes. Various bioremediation configurations as options for treatment of different classes of chemicals have been evaluated. The analysis of microbial action in waste management and control involves the use of diverse microorganisms such as protozoa, Algae, Bacteria, Fungi and Viruses that involved in waste management and then followed by waste categorization and characterization; Domestic waste, Agricultural waste, Electronic waste and scrap metals, Industrial waste and medical waste. The strategies identified for waste management include: Composting, Landfills, Waste water treatment and microorganism as well as primary treatment, secondary treatment and bioremediation. Finally, it has been find out that microorganisms are used to remedy environmental problems or waste management and control as part of recent advancement in biotechnology known as bioremediation.

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