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A REVIEW OF THE USE OF MICROBIAL AMYLASE IN INDUSTRY

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ABSTRACT

Amylases are one of the most often utilized enzymes in business. Enzymes like these hydrolyze starch molecules into polymers made up of glucose units. Amylases have the potential to be used in a variety of commercial activities, including food, fermentation, and pharmaceuticals. Amylases come from a variety of sources, including plants, animals, and microbes. In the industrial sector, however, enzymes derived from fungi and bacteria have prevailed. The enzyme amylase is required for the conversion of starches to oligosaccharides. Starch is a key component of the human diet and a significant storage product in a variety of commercially important crops, including wheat, rice, maize, tapioca, as well as potato. Maltodextrin, modified starches, and glucose or fructose syrups are all made using starch converting enzymes. A wide range of microbial amylases are used in a variety of industries, including food, textiles, paper, and detergents. Submerged fermentation has traditionally been used to make amylases, however submerged fermentation systems seem to be a viable technique. The thermo stability, pH profiles, pH stability, and Ca-independency of each amylase are essential in the development of the fermentation process. The synthesis of bacteria and fungi amylases, their distribution, structural-functional features, physical and chemical parameters, and their usage in industrial applications are all covered in this study.

KEYWORDS: *Amylase, Bacterial, Enzyme, Fungal Amylase, Starch.*

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