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AN OVERVIEW OF ENZYMES AND THEIR USE IN THE DETERGENT INDUSTRY

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ABSTRACT

Chemical usage has grown quickly in many industries across the globe, posing a threat to human health. In terms of sustainability and process efficiency, enzymes as industrial biocatalysts provide benefits over out-of-date chemical processes. This item covers the enzyme, including its many forms, as well as its uses in the detergent industry. Enzymes may assist decrease the amount of chemicals needed in conventional detergents, reducing their environmental effect since they're recyclable, non-toxic, and leave no hazardous residues behind. Additional enzymes, in addition to lipases, are widely utilized in household cleaning goods, laundry, agriculture, medicine, and other fields. The use of enzymes as detergents, particularly lipases, is discussed in this article. Lipases are a fat-based enzyme used in detergents to remove stains such as salad oils, fried fat, butter, fat-based items, lipstick soup, biological sebum, and soup. Lipases have a wide range of specificity. The primary benefit of using enzymatic detergent is that it is both cost efficient and environmentally friendly. Although biological implementations for industrial purposes, as well as certain advancements for increasing the stability and performance of detergent lipases enzyme, have previously been completed, there are still important opportunities for future study.

KEYWORDS: *Catalysts, Detergent, Enzyme, Lipases, Protein.*

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