

Effective Protease for detergents

Introduction

Effective Protease are granular alkaline proteases for use in powder laundry products. They are specifically developed for optimal performance in low temperature and short cycle wash conditions. Effective Protease are useful for removing common household stains such as blood, grass, milk, and gravy. Effective Protease hydrolyze the peptide bonds in (insoluble) proteins found in these stains. This effectively cuts the protein into soluble peptides and amino acids, which can then be removed by the wash liquor. Effective Proteaseis based on technology that brings high storage stability and dissolution speed, excellent distribution properties and safety to work with.

Storage and stability

Recommend to store ambient, not exceeding 25°C. Packaging must be kept intact, dry, and away from sunlight. This product is formulated for maximum storage stability. Data for specific storage stability is available upon request.

Packaging

Effective Protease is available in different types of packaging. Please contact your sales representative for details.

Composition

The granulate contains enzyme concentrate, inorganic salts and coating materials. Detailed composition data may be made available, please contact your sales representative for more information.

Typical product characteristics/properties

Effective Protease are available in three enzyme concentrations:

Product	EFFECTIVE PROTEASE	SUPER EFFECTIVE PROTEASE
Min. activity! [XXU/g]	2,000	8,000
Product form	Free flowing granulate	Free flowing granulate
Appearance	Tan to white	Tan to white
Bulk density [g/ml]	1.0-1.5	0.8-1.2

Usage recommendations

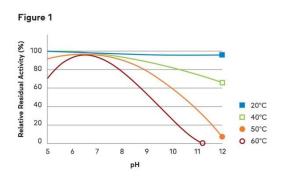
Application

Effective Protease is effective across a broad range of pH for temperatures up to 40°C. Performance at higher temperatures may be more dependent on application and formulation specific conditions.

Elizzyme

Safety and enzyme handling

Figure 1



Residual activity of Effective Proteasein function of pri and temperature. Method: Incubation of enzyme in buffer for 20 minutes at various pH and temperatures, followed by an activity assay

Dosage

Recommended dosage of Effective Protease is 0.02%-1.00% (w/w in detergent) depending on a product in use. Exact dosage should be based upon wash conditions, detergent formulae and dosing and the desired level of performance.

This product does not contain genetically engineered organisms. The enzyme product is manufactured by fermentation of microorganisms that are not present in the final product. The production organisms and the enzyme effectiveness are improved by means of modern biotechnology.

Inhalation of dust from granulated enzymes should be avoided. In case of accidental spillage or contact with the skin or eyes, promptly rinse with water for at least 15 minutes. For detailed handling information, please refer to the appropriate Material Safety Data Sheet, the Enzyme Technical Association (ETA) handbook Working Safely With Enzymes, and the Association of Manufacturers of Fermentation Enzyme Products (Amfep) handbook Guide to the Safe Handling of Microbial Enzyme Preparations, and the Soap and Detergent Association (SDA) handbook Work Practices for Handling Enzymes in the Detergent Industry.

Contact information

For more information, please contact your sales representative, a member of the E Home- and Personal Care team.

www.elizzyme.in

eelitechemicals@gmail.com,

+91 888-888-8964