

EFFECTIVE P 100

Introduction

EFFECTIVE P 100 is a cost effective alkaline protease for use in liquid detergent products. EFFECTIVE P 100 helps remove tough stains through hydrolysis of insoluble proteins into soluble peptides and amino acids, which can then be removed easily from the fabric. EFFECTIVE P 100 is useful in the removal of common household stains such as blood, grass, milk, gravy, etc

Typical product characteristics/properties

Product	EFFECTIVE P 100
Min, activity [GSU/l]	42000
Product form	Liquid
Appearance	Brown liquid
PH	5.5-6.5
Target specific gravity	1.0-1.2

Composition

The liquid contains enzyme concentrate, stabilizers and preservatives. Detailed composition data may be made available, please contact your sales representative for more information.

Storage and stability

Recommend to store refrigerated, not exceeding 10°C. Packaging must be kept intact, dry, and away from sunlight. This product is formulated for maximum storage stability. Specific product storage stability, data is available upon request.

Packaging

EFFECTIVE P 100 is available in different types of packaging. Please contact your sales representative for details.

Usage recommendations

Application

EFFECTIVE P 100 is robust for prolonged times at temperatures up to 50°C between pH 6 and 10. Results at higher temperatures or outside of this pH range may be more dependent on storage or formulation specifics (figure 1). The optimal performance can be expected between pH 7 and pH 9.

Dosage

Recommended dosage of EFFECTIVE P 100 is 900-4000 GSU per liter of wash liquor. Exact dosage should be based upon wash conditions, detergent formulation, detergent dosing and the desired level of performance.

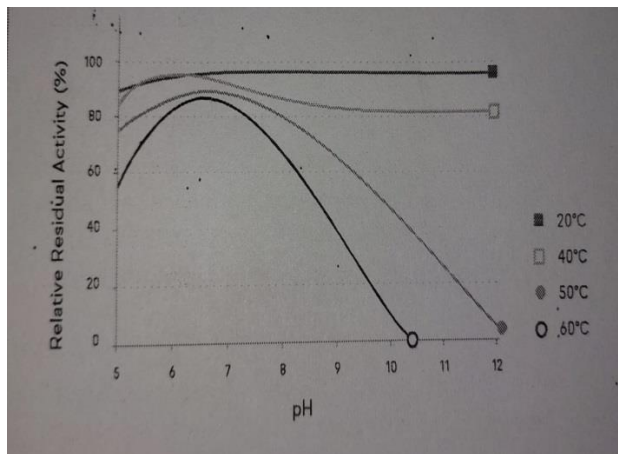


Figure: Residual activity of EFFECTIVE P 100 in function of pH and temperature. Method: Incubation of enzyme in buffer for 20 minutes at various pH and temperatures, followed by an activity assay.

Formulation recommendation

Use of sodium formate, tri-methyl glycine and polyols as well as nonionic instead of anionic surfactants has a general positive effect on enzyme stability. Use of hydrophobic solvents as well as formaldehyde generating anti-microbial agents should be avoided. Protease stability in liquid detergents can be increased by addition of 0.5% boric acid or related compounds like MEA- borate. Protease stability will also increase in detergents with low water activity. In dilute detergents, substituting 2-5% of water with glycerol or preferentially mono propylene glycol will lead to increased stability

Safety and enzyme handling

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 kindly visit us at:-

www.elizzyme.in

eelitechemicals@gmail.com,

+91 888-888-8964