



Technical Product Data Sheet

ACTIONZYME-Four Enzyme Blend-LIQ
Enzymes for Detergent Liquid

Product Description

ACTIONZYME FOUR ENZYME BLEND is the mixture of Protease, Lipase, Amylase & Cellulase it is the major class of detergent enzymes, where each provides specific benefits for application in laundry.

Proteases are the first to be used extensively in laundry detergents, which not only raise the level of cleaning, but also provide environmental benefits. Cellulases contribute to overall fabric care by rejuvenating or maintaining the new appearance of washed garments. Lipases and amylases are joined proteases in improving detergent efficacy, especially for household laundering at lower temperatures and, in industrial cleaning operations, at lower pH levels.

Product Parameter:

Appearance:	Light yellow to Brown Colour Liquid
Enzyme concentration:	Amylase:10% Cellulase:10% Protease :50% Lipase: 30%
Optimum pH Range:	9.0 to 10.0
Working PH Range:	7.0-11.0
Optimum Temperature:	40°C to 60°C
Working Temperature:	20°C TO 90°C
Clarity:	Clear Solution

Application

ACTIONZYME FOUR ENZYME BLEND is a widely used combination of enzymes in a detergent formulation. It removes protein stains such as grass, blood, egg, and human sweat which have a tendency to adhere strongly to textile fibers.

Used to remove residues of starch-based foods like potatoes, spaghetti, custards, gravies, and chocolate.

Decomposes fatty material - Lipase can remove fatty stains such as fats, butter, salad oil, sauces, and the tough stains on collars and cuffs.

Modifies the structure of cellulose fiber on cotton and cotton blends.
When it is added to a detergent, it results in; color brightening, softening and soil removal.

Benefits

Improve cleaning efficiency of detergents

Eco friendly and biodegradable.

Shorter washing time

Reduced energy consumption by lowering wash temperatures.

environmentally friendly behavior, minimized energy consumption, easily controlled processes, possible modification of enzyme characteristics, environmentally friendly by products, minimal greenhouse gas emissions, decreased use of non-renewable
Decompose fatty material.

Dosage: the recommended dosage is 0.1 %to 0.8% as per require, the actual dosage need to be optimized depending upon factor such as the process and application.

Storage

ACTIONZYME FOUR ENZYME BLEND should be stored in a cool dry place.

Packaging

ACTIONZYME FOUR ENZYME BLEND Is available in 25 kg paper bag for powder and 25 kg HDPE drum for liquid products. Packaging can be customized as per requirement.

Technical Support

Antozyme technical laboratory shall be pleased to provide more information covering specific applications for this product or discuss any problem, which may occur in the detergent industry.

Usage Guidelines

There are many factors that influence protein hydrolysis with **ACTIONZYME FOUR ENZYME BLEND** such as:

I. Types of detergent

II. pH of the detergent

III. Moisture content of detergent

Heavy metals, halogens and oxidizing agents, free acids de-activate the enzyme, hence should be avoided.

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