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PRODUCT SPECIFICATIONS SHEET

Protease Ultra Blend 10X

Ingredients: Protease from *Bacillus licheniformis* standardized on a maltodextrin carrier

Description: Protease Ultra Blend 10X is a proprietary blend of enzymes from three different strains of Protease Enzyme producing *Bacillus* sp. The aim of this product is to produce a potent, broad spectrum product for use in a variety of animal feed and sanitary applications where high proteolytic activities are required.

Purpose: Protease enzymes have more recently been utilized in the digestion of high protein feedstuffs such as Distillers Dried Grains and Solubles (DDGS) resulting from the fuel alcohol fermentation processing of corn. In addition, other high protein ingredients such as soybeans benefit from proteolytic digestion to improve bioavailability of peptides and amino acids for non-ruminants as well as ruminants. Example substrates are casein, hemoglobin, gelatin, soya, fish meal, etc. Protease Ultra Blend 10X makes an ideal addition to cellulosic digesting enzymes such as cellulase, hemi-cellulase, xylanase and mannanase to provide improved bioavailability for a wide range of animal rations.

Activity:	Fungal Protease	77,000 HUT/gram
	Neutral Protease	50,000 PC/gram
	Alkaline Protease	1.14 AU/gram

Unit Definitions:

Fungal Protease - One HUT unit of proteolytic (protease) activity is defined as that amount of enzyme that produces, in one minute under the specified conditions, a hydrolysate whose absorbance at 275nm is the same as that of a solution containing 1.10 g per mL of tyrosine in 0.006N hydrochloric acid.

Neutral Protease - One bacterial protease unit (PC) is defined as that quantity of enzyme that produces the equivalent of 1.5 mg per mL of l-tyrosine per minute under the conditions of the assay.

Alkaline Protease - One unit of alkaline protease (AU) is defined as that amount of enzyme needed to produce an absorbance at 660nm that corresponds to the absorbance of 1µg of tyrosine per minute under the conditions of the assay (pH 8.0 and 30°C).

pH Optimum: 6.0 – 9.0, activity range pH 4.0 – 9.0

Storage Conditions: For optimal activity store in cool dry place under 100°F. Standard shelf life under these conditions is 2 years.

Danger: May cause allergy or asthma or breathing difficulties if inhaled. Avoid breathing dust/fume/gas/mist/vapors/spray. In case of inadequate ventilation, wear respiratory protection. Consult safety data sheet before handling and storing this product.

Package Sizes: 25 kg. and 50 lb. box

This feed is produced in a facility certified in the AFIA's Safe Feed/Safe Food Certification Program www.safefeedsafefood.org



MADE IN USA