



POSZYME

PHYTASE FOR POULTRY

PRODUCT DATA SHEET

CHARACTERISTICS:

Appearance	Granules
Colour	Yellowish
Odour	Normal fermentation odour
PH range	4.5 - 5.5, optimum 5.0
Loss on drying	8% max
Particle Size (Pass through 40 mesh)	= 80%
Solubility	Partially miscible
Total viable count	2000 cfu/g (permissible 50,000 cfu/g)
Coliforms	None
Escherichia coli	None
Salmonella	None
Yeast & fungi	50 cfu.g (permissible 100 cfu/g)



DESCRIPTION:

POSZYME is a phytase enzyme preparation derived from the *Pisichia pastoris* through fermentation and extraction techniques. Poszyme degrades phytic acid into inositol or phosphoinositide and phosphoric acid. These products reduce anti-nutrient action of non-degradable phytic acid so as to improve the nutrient utilization. Poszyme reduces environmental pollution caused by the use of inorganic phosphorous and its subsequent release through droppings.

PRODUCT APPLICATION:

Poszyme is a natural enzyme used to improve nutritional quality of phytic acid rich feed ingredients. It is recommended for feeds designed for birds and monogastric animals and has the following benefits:

1. Improves utilization of bound phosphorous by liberating inorganic phosphorous from phytic acid in plant materials
2. Phytic phosphorous is converted into available inorganic phosphorous
3. Supplementation of phosphorous in the form MCP, DCP, TCP can be reduced
4. Reduction in amount of phosphorous loss through excreta and thus reduction in phosphorous pollution of the environment
5. Utilization of minerals such as Calcium+2, Magnesium+2, Manganese+2, Iron+2 and proteins such as amino acid is improved

ACTIVITY:

Poszyme 2500 G: 2500 U/g
Poszyme 5000 G: 5000 U/g

DEFINITION OF UNIT:

1 unit of enzyme Phytase is the amount of enzyme required to release 1mmol of inorganic phosphorous from 5mmol of sodium phytate at 37°C and pH 5.0.

PROPERTIES:

1. Wide range of pH stability

Poszyme is optimally active when the pH is 4.5. When pH is 2 the activity of Poszyme is 48.8% and when pH is 6.0, the activity of Poszyme is 45.7%. Poszyme has good stability at different pH levels (Figure 1).

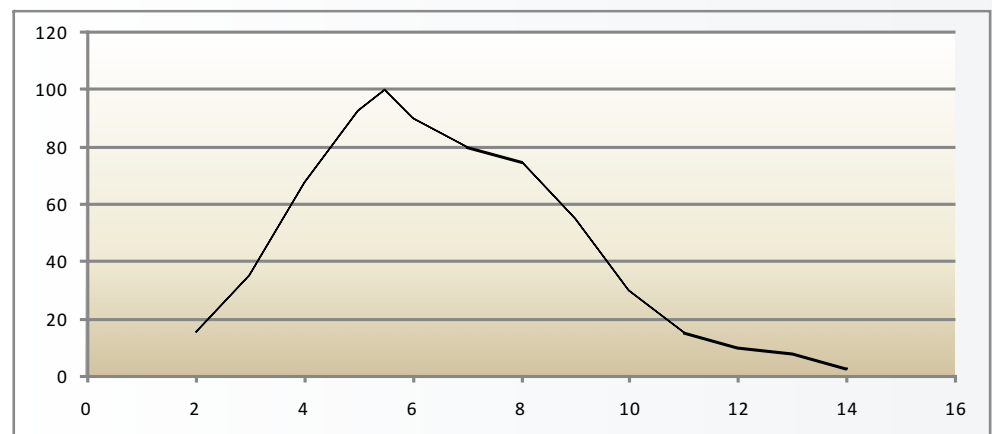


Figure 1: Activity Poszyme at Different pH



MATRIX VALUE OF POSZYME 5000



Nutrients	Broiler	Layer
	1 Kg is equivalent to	
Crude proteins	22,000 g	22,000 g
Lysine	1,100 g	1,100 g
Methionine	100 g	100 g
Methionine & Cystine	280 g	280 g
Threonine	1,250 g	1,250 g
Isoleucine	1,200 g	1200 g
Tryptophan	300 g	300 g
Calcium	10,000 g	16,600 g
Total phosphorous	11,000 g	23,000 g
Available phosphorous	10,000 g	19,000 g
ME (Metabolizable Energy)	530,000 Kcal	530,000 g

Based on per ton of feed

Table 1

STORAGE STABILITY

The moisture content of granulated Poszyme is below 8%. After a special granulation process, it forms a protective layer around granule. Therefore stability is good.

NOTE: Poszyme should be stored in a cool dry place away from sunlight.

At 25°C, 12 months, the enzymatic activity of Poszyme will remain > 90%.

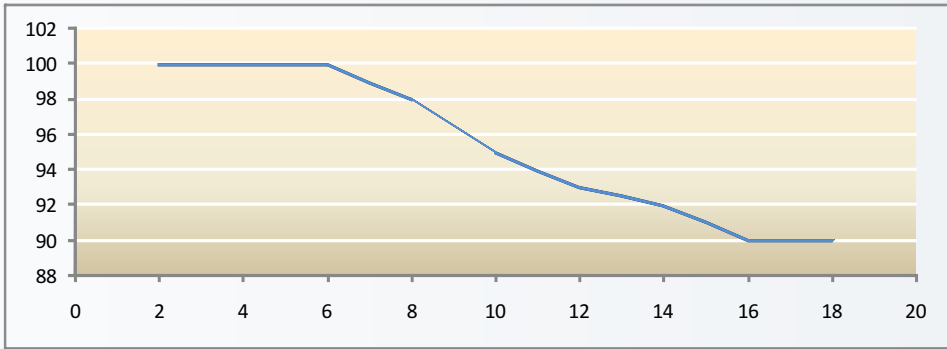


Figure 2: Storage stability of Poszyme

RECOMENDED DOSAGE OF POSZYME IN COMPLETE FEED

Species	POSZYME 5000			
	Additive Quantity (G/ton)	Total P (%)	AP (%)	Quantity of Substitute CaHPO4 (Kg/ton)
Layer	60	2330	1960	8.5 - 9.5
Broiler	100	1150	1000	6.2 - 8.5

POSZYME 2500			
Additive Quantity (G/ton)	Total P (%)	AP (%)	Quantity of Substitute CaHPO4 (Kg/ton)
120	1165	980	8.5 - 9.5
200	575	500	6.2 - 8.5

PRECAUTION:

Enzyme a protein may induce sensitization and/or cause allergic reactions in sensitive individuals. Prolonged contact may cause minor irritation for skin, eyes or mucous membrane of nose, so any direct contact with the human body should be avoided. If irritation or allergic response for skin or eyes develops, consult a doctor.

