

# Enzymology Research Center, Inc. 332 West Street North, Miltona, MN 56354 U.S.A

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# PROTEASE ACID STABLE (Aspergillus niger)

#### **SPECIFICATION SHEET**

I.U.B. 3.4.23.18

# **DESCRIPTION**

A Non-GMO highly concentrated proteolytic fungal enzyme derived from Aspergillus niger, standardized with tapioca dextrin.

#### **PHYSICAL PROPERTIES**

A tan to light tan colored, fine, free-flowing powder, soluble in water, free of offensive odor and taste.

#### **ENZYMATIC PROPERTIES**

The pH optimum is 2.0 to 3.0 with a stability range of 2.0 to 5.0. The optimum temperature is 55°C with a stability range from 30°C to 60°C.

# **ACTIVITY**

One spectrophotometric acid protease unit (SAPU) is that activity that will liberate 1 micromol of tyrosine per minute under the conditions specified. The acceptance criteria for all enzyme assays is: NLT 85.0% and NMT 115.0% of the declared units of enzyme activity.\*

# **COUNTRY OF ORIGIN USA**

### STORAGE/SHELF LIFE/STANDARD PACK SIZE

Product is stable for two years (24 months) if stored at or below 10°C in sealed poly bags in boxes or drums away from sunlight and high humidity. Product is packed in 25 kilo fiber drums or double-wall boxes.

# **HANDLING PRECAUTIONS**

Avoid the formation of aerosol and dust of the product. Repeated inhalation of enzyme aerosol or dust may cause allergic type reactions in sensitized individuals. For detailed information please refer to the SDS.

Description	Specification	Method
Activity:	NLT 5,000 SAPU/GM	FCC
Identity:	Protease Acid Stable	FTIR
Moisture:	NMT 10%	Ohaus MB-45
Metals:		
Lead	NMT 5 ppm	SW-846 6020
Microbiological Data:		
TPC	<10,000 CFU/g	Soleris / AOAC 990.12
E.coli	Negative/10g	Soleris / AOAC 991.14
Entero	<100 CFU/g	AOAC 2003.01
Salmonella**	Negative/25g	BAM Ch. 5 / AOAC 2011.03
Yeast	<1,000 CFU/g	Soleris / AOAC 997.02
Mold	<1,000 CFU/g	Soleris / AOAC 997.02
Coliforms	<100 CFU/g	Soleris / AOAC 991.14

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<sup>\*\*</sup>If Entero test results exceed 100 CFU/g then Salmonella testing is completed.