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## FICIN (Ficus species)

### SPECIFICATION SHEET

I.U.B. 3.4.22.3

#### DESCRIPTION

Ficin is a proteolytic food grade enzyme extracted from the latex of Ficus species, a tropical fig tree. It exhibits a faster initial reaction rate than Bromelain or Papain. Ficin is typically used for meat and fish tenderization, production of bread and flavors, and hydrolysis of plant and animal proteins.

#### PHYSICAL PROPERTIES

A light tan free-flowing powder, soluble in water, with characteristic odor and taste.

#### ENZYMATIC PROPERTIES

The pH optimum range is 5.0 to 8.0 with a stability range of 4.0 to 11.0. The optimum temperature range is 45°C to 60°C, at pH 6.0.

#### ACTIVITY

The proteolytic activity is measured in hemoglobin units. The assay is based on the enzymatic hydrolysis of denatured hemoglobin at pH 4.7. 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** Peru

#### 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 50,000 HUT/GM	FCC
Identity:	Ficin	FTIR
Moisture:	NMT 10%	Ohaus MB-45
Metals: Lead	NMT 0.5 ppm	AOAC 2013.06
Microbiological Data:		
TPC	<10,000 CFU/g	Soleris / AOAC 990.12
E.coli	Negative/10g	Soleris / AOAC 991.14
Enterococcus	<100 CFU/g	Soleris / AOAC 2003.01
Salmonella**	Negative**	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

\*FCC 12 Page 408

\*\*If Enterococcus test results exceed 100 CFU/g then Salmonella testing (Negative/25g) is completed.