

# Serrazimes®



## TECHNICAL INFORMATION

### DESCRIPTION:

This exclusive food grade fungal enzyme system, used in National Enzyme Company products, is obtained by the controlled fermentation of *Aspergillus oryzae* and *Aspergillus melleus*. This unique preparation is characterized by its ability to hydrolyze a casein substrate, in a manner consistent with the standardized activity of serrapeptidase.

### ACTIVITY:

There is no published FCC method for determining the activity of serrapeptidase. National Enzyme Company uses an industry-accepted method to standardize **Serrazimes®** based on serrapeptidase activity. Within the industry serrapeptidase activity is determined by casein hydrolysis. One serrapeptidase unit "U" is defined as the amount of enzyme that will liberate from a standard casein substrate the equivalent of 1.0 µg of tyrosine per minute at pH 9.0 and 37° C. This assay is based on a 20-minute hydrolysis of a standard casein substrate. At the end point of this hydrolysis, any remaining (unaffected) proteins are precipitated from solution using trichloroacetic acid and removed by quantitative filtration. The filtrate is then spectrophotometrically compared to the tyrosine standard curve.

### PROPERTIES:

Form:	Dry powder
Color:	Light tan
Odor:	Free of offensive odor
Taste:	Free of offensive taste
Effective pH Range:	pH 4 to 9
Optimum pH Range:	pH 6 to 9
Effective Temperature Range:	30° to 55° C
Optimum Temperature:	37° to 47° C

### TYPICAL SIDE ACTIVITIES:

Various proteolytic activities

### APPLICATIONS:

**Serrazimes®** is a unique enzyme system specially formulated to provide an enzymatically equivalent alternative to serrapeptidase, when serrapeptidase's cost, stability, safety, or availability are of concern. **Serrazimes®** is typically used in the resolution of inflammatory responses that result from injury or illness.

### SHELF LIFE:

To maintain optimum enzyme activity, this product should be stored in a cool, dry place in a tightly sealed container. When properly stored, this product can be expected to have a shelf life of 24 months.