PRODUCT INFORMATION SUMMARY



Product Summary

Product	ACTIVATM TG-NS-MH	
Ingredients	Trisodium Phosphate, Potato Starch, Dextrin, Transglutaminase and Palm	
Shelf Life (Tentative)	18 MONTHS WHEN STORED IN COOL, DRY PLACE IN THE ORIGINAL PACKAGING	
Packaging Size	1kg X 10pkts / Carton Box	

Product Specification

ACTIVA™ TG Preparation	ACTIVA _{TM} TG-NS-MH	
No Analysis Items		
1 Total Plate Count	Max. 3.0 x 10 ³ c/g	
2 Heat Resistance Bacteria	Max. 5.0 x 10 ² c/g	
3 E. Coli Negative		
4 Loss on Drying	Max. 4.0%	

WHAT IS TRANSGLUTAMINASE (TG)?

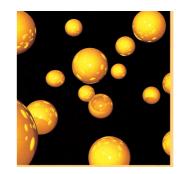
TRANSGLUTAMINASE IS AN ENZYME.

Transglutaminase (TG) is an enzyme that catalyses the polymerisation and crosslinking of proteins. For the first time in the world, **JINOMOTO** had succeeded in creating a method for the mass production and commercialisation of this highly functional enzyme and has been demonstrating its wide application in various food processes.

EFFECT

Improves the physical properties of food, such as firmness and elasticity.

Model of TG reaction







Protein molecules

Cross-linked proteins

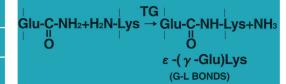
FUNCTION

Forms crosslinks (ε -(γ -Glu)Lys) between glutamine and lysine residues in proteins.

Enzymic characteristics of TG

Optimum pH	6~7
pH stability	5~9
Optimum temperature	55°c

Reaction catalysed by TG



QUESTIONS & ANSWERS

Q.1 What contains TG? And do general foods contain G-L bonds?

A.1 TG is widely distributed in the natural world. It is found in animals, such as humans and cows, as well as fish and plants such as peas. Furthermore, the crosslinks formed by TG are widely contained in ordinary foods. Thus, people have been eating food with G-L bonds for a long time.

Q.2 How is TG manufactured?

A.2 Same as soya sauce, TG is made by means of a fermentation process, whereby starch and other raw materials are used. When fermentation process is completed, all transglutaminase-producing microorganisms are completely removed.

Q.3 How about safety?

A.3 TG is safe. Its safetiness has been firmly established in a variety of tests.

Q.4 Will the nutritional value of the food be lost?

A.4 Nutritional value will not be lost. The cross-linked proteins have no adverse effect and can be readily absorbed by the body.

Do not dissolve ACTIVATM TG-NS-MH directly into water due to its high alkaline content / preparation.