

HI-TEMPASE

PRODUCT CODE: HITEMPASE

FOOD GRADE PRODUCT

DESCRIPTION

A bacterial alpha-amylase derived from a self-cloned strain of *Bacillus licheniformis* blended with Glycerine.

Hitempase is a food-grade, heat-stable, starch- hydrolyzing product derived from a genetically modified strain of *Bacillus licheniformis*. Hitempase is an endoamylase which hydrolyzes internal α -D-1,4 glucosidic bonds to reduce the viscosity of gelatinized starch, producing soluble dextrans and oligosaccharides. Its high thermal stability renders Hitempase ideal for continuous and batch liquefaction of starch or starch-containing materials.

Effect of pH

Hitempase is most active in the pH range of 6.0 to 7.0 @ 60°C, the optimum pH is 6.0. As the temperature rises, the pH optimum shifts toward 7.0.

Effect of Temperature

The optimum temperature for Hitempase is 95°C. The enzyme maintains considerable activity at higher temperatures (> 100°C).

PHYSICAL SPECIFICATIONS

Form:	Liquid, free of any foreign organic or inorganic matter
Colour:	Light to dark brown
Odour:	Free of offensive odour

CHEMICAL SPECIFICATIONS

Amylase Activity:	6,500 – 7,100 TAU/g
pH:	6.0 – 7.5
Specific Gravity:	1.15 – 1.25

MICROBIOLOGICAL SPECIFICATIONS

Aerobic Plate Count:	Not More Than 50,000 cfu/g
Yeast & Mould:	Not More Than 200 cfu/g
Coliforms:	Not More Than 30 cfu/g
<i>E. coli</i> :	Not Detected in 25g
<i>Salmonella</i> spp:	Not Detected in 25g

HEAVY METAL SPECIFICATIONS

Heavy Metals (as Pb):	Not More Than 30 mg/kg
Lead:	Not More Than 5 mg/kg
Arsenic:	Not More Than 3 mg/kg

PACKAGING

Various Food Grade Sizes available

STORAGE INSTRUCTIONS

Store under dry, refrigerated conditions at 4-6 °C in a sealed container.

SHELF LIFE

1 year best before shelf life by storing under refrigerated conditions at 4-6 °C for optimum stability.

INGREDIENTS & ¹NUTRITIONAL FACTS

Salt, Sorbitol, Amylase, Water

	Per 100g
ENERGY	kJ
CARBOHYDRATE	g
FAT (Total)	g
(Saturated)	g
PROTEIN	g
SODIUM	g

¹Enzymes function in food processing systems as Biocatalysts and are used at extremely low concentrations. It is highly unlikely that the enzyme materially contributes to the nutritional composition of the food.

HALAL STATUS

Suitable

KOSHER STATUS

Certified

GMO STATUS

NON GMO (According to Australian and New Zealand Food Standards Code Section 1.5.2.2)

PURITY STATUS

Complies with Food Chemical Codex Standards for food enzymes

ALLERGEN STATUS

YES	NO	ALLERGENS
	X	Cereals containing Gluten (Wheat, Rye, Barley, Oats or Spelt or their hybridized strains) ² Glucose considered consumed during fermentation
	X	Crustacea & their products
X		Eggs & egg products. (Lysozyme added for recovery)
	X	Fish & fish products
	X	Peanuts & their products
	X	Soybeans & their products. ² Considered consumed during fermentation
	X	Milk & milk products (Lactose)
	X	Nuts & nut products
	X	Sesame seeds & their products
	X	Added sulphites in concentration of 10mg/kg or more

This product complies with the current recommended purity specifications for food-grade enzymes given by the Joint FAO/ WHO Expert Committee on Food Additives (JECFA) and the Food Chemicals Codex (FCC).

Issue No:	Summary of changes made from previous version:	Actioned by:	Authorised by:
4	Change of logo	Maree Edleston	Michael Watson