

# **Product Specification # 34-52-2.5**

# <u>Lamb Pregastric Esterase Powder (PGE)</u> Strength - 80 LFU/g

# **Description:**

Lamb Pregastric Esterase Powder (PGE) is a preservative free extract of the epiglottis (tongue root) of lambs containing lipolytic and esterase activity. The product is freeze-dried, and supplied as a water soluble powder. The powder is slightly hygroscopic, and pink/brown in colour.

### **Purity:**

Lamb PGE Powder is extracted from certified disease-free export quality lamb tongue roots. The product contains no solvent residues and is stabilised by freeze-drying in the presence of salt and refined maltodextrin. Activity is standardised by the addition of salt.

### Strength:

Lamb PGE is standardised to 80 LFU/g (lipase fore-stomach units).

One LFU releases 1.25 µmoles of butyric acid per minute at 42°C and pH 6.20 from tributyrin under the conditions defined by the Food Chemicals Codex (FCCIII, p493, 1981).

### Use:

It is recommended that the measured amount of PGE powder is dissolved into clean cold water prior to use. **Diluting water must be free of all residual chlorine.** Addition rates can only be ascertained by trials under manufacturing conditions.

#### Packaging:

Lamb PGE is available in quantities of 20 kg (nett) packed in polybags in PVC pails. Other packaging configurations are available upon request.

## Storage:

It is recommended that product be stored and transported under refrigeration (less than 8°C) and kept dry and away from sunlight. Containers should be kept closed. For long term storage the product may be frozen. Stock should be used in rotation to maintain maximum strength.

### Stability:

At the recommended storage conditions, the powder loses activity at a rate of less than 0.5% per month. Under frozen storage there will be negligible activity loss observed over a 24 month period.

### **Halal Certification:**

Halal certified lamb PGE is available on request. It is manufactured from Halal raw materials by a Halal approved process. Inspection and certification is provided by NZ Islamic Meat Management.

#### Certification:

Each batch of PGE is analysed and certified to meet the following standards at the time of manufacture:

### **Chemical Analysis**

Strength: 80 LFU/g, based on FCC III, 1981

## **Bacteriological Analysis**

	Specification	Method
Standard plate count	<5,000 cfu/g	Modified AS 5013.1
Anaerobic plate count	<1,000 cfu/g	Renco In-House
Yeasts and Moulds	<100 cfu/g	APHA 4th Ed. Chapter 20
Lactobacilli	<100 cfu/g	APHA 4th Ed. Chapter 19
Coliforms	Not detected in 5g	Modified AS 5013.3
Staphylococci	Not detected in 2.5g	Modified AS 5013.12.3
(coagulase positive)		
Salmonella	Not detected in 20g	Modified Rappaport-Vassiliadis
		Soy
Listeria	Not detected in 20g	FDA Bacteriological Analytical
		Manual 8th Ed, 1998 (mod)

### **Food Chemicals Codex:**

Product conforms to additional requirements of FCC III, vis.,

Arsenic (as As)	< 3 ppm
Heavy metals (as Pb)	< 40 ppm
Lead	< 10 ppm
Cadmium	< 0.5 ppm
Mercury	< 0.5 ppm

# Compliance:

Conforms to the requirements of the Australia New Zealand Food Standards and to the specifications of the Joint FAO/WHO Expert Committee on Food Additives (JECFA).

Not subjected to any irradiation treatment.

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