

Product Specification # 20-52-1.3

Calf Pregastric Esterase Liquid (PGE)

Strength - 80 LFU/mL

Description:

Calf Pregastric Esterase Liquid (PGE) is an extract of the epiglottis (tongue root) of calves containing lipolytic and esterase activity. The product is supplied as a non-drying water-miscible liquid. The liquid is red in colour.

Purity:

Calf PGE liquid is extracted from certified disease-free export quality calf tongue roots. The product contains no solvent residues and is stabilised by the addition of food-grade glycerol and salt.

Strength:

Calf PGE is standardised to 80 LFU/mL (lipase fore-stomach units).

One LFU releases 1.25 μ moles 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:

PGE liquid can be added directly, or preferably, dispersed in **chlorine free water** prior to addition. The product is non-settling so can be pumped if required. Addition rates can only be ascertained by trials under manufacturing conditions.

Packaging:

Calf PGE liquid is available in 20L cubes. 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 away from sunlight. Containers should be kept closed. Stock should be used in rotation to maintain maximum strength.

Stability:

At the recommended storage conditions, the liquid loses activity at a rate of less than 2% per month. Higher storage temperatures will lead to increased rates of activity loss.

Halal Certification:

Halal certified calf 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/mL, based on FCC III, 1981

Bacteriological Analysis

	Specification	Method
Standard plate count	<1,000 cfu/mL	Modified AS 5013.1
Anaerobic plate count	<1,000 cfu/mL	Renco In-House
Yeasts and Moulds	<50 cfu/mL	NZTM2 61.1
Lactobacilli	<50 cfu/mL	NZTM2 54.1
Coliforms	Not detected in 50mL	Modified AS 5013.3
Staphylococci (coagulase positive)	Not detected in 5mL	Modified AS 5013.12.3
Salmonella	Not detected in 100mL	Modified Rappaport-Vassiliadis Soy
Listeria	Not detected in 100mL	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.