

## Product Specification # 20-25-2.3

### Natural Calf Rennet Powder

**Strength – 1100 IMCU/g, minimum 92% Chymosin, 1:100,000**

#### **Product Description:**

A purified powder, containing milk clotting enzyme extracted from the fourth stomach of young milk fed calves. Supplied as a standardized powder containing a minimum of 92% chymosin as active component (typically 94 to 96% chymosin). Manufactured in New Zealand.

#### **Purity:**

Renco Natural Calf Rennet is purified by cellulose ion exchange chromatography. The unique chromatography step in the purification of rennet ensures a white powder with a much lower muco-protein content than most other similar products currently available. It does not contain any deodorants or reodorants.

#### **Strength:**

The strength of Renco Natural Calf Rennet Powder is standardised with respect to the coagulation of whole milk. Coagulation, however, is influenced by factors such as seasonal variations affecting milk quality, additions of calcium chloride, pH or acidity variations, and the occurrence of inhibitory agents in the milk.

The usage rate of Renco Natural Calf Rennet Powder (1100 IMCU/g) can be expected to be in the range of 2 - 3 g/100 L of milk.

#### **How to Use:**

It is recommended that the measured amount of rennet powder is dissolved in 400 times its own weight of clean cold water, allowing 30 minutes with occasional agitation for complete dissolution. **Diluting water must be free of all residual chlorine.** Thereafter follow regular cheese making procedures.

#### **Storage:**

Store in a cool dry place away from direct light. The ideal storage temperature is 3 to 7°C. Containers should be kept closed. Stock should be used in rotation to maintain maximum strength.

#### **Stability:**

Under ideal storage the preparation displays excellent long term stability (less than 5% activity loss in 12 months).

#### **Packaging**

Renco Natural Calf Rennet Powder is available in 500 g plastic containers and 25 kg plastic barrels. Other pack sizes can be supplied on specific request. For transportation, the standard 500 g containers are packed 40 per carton (i.e. 20.0 kg nett).

**Animal Origin Guaranteed:**

It is guaranteed that the active enzymes are obtained only from the fourth stomach of milk fed calves without the addition of any other animal or fermentation produced enzymes.

**Certification:**

Each batch of rennet is analyzed and certified to meet the following standards at the time of manufacture:

**Chemical Analysis**

	<b>Standard</b>	<b>Method</b>
Strength :	1100 IMCU/g	IDF Standard 157:1992
Chymosin :	min. 92 %	IDF Standard 110B:1997
Pepsin :	max. 08 %	IDF Standard 110B:1997
Foreign Matter	not detected	visual

**Bacteriological Analysis**

Standard plate count	<1000/g	Modified AS 5013.1
Anaerobic plate count	<100/g	Renco In House
Yeasts & Moulds	< 50/g	NZTM2 61.1
Lactobacilli	< 50/g	NZTM2 54.1
Coliforms	absent in 5 g	Modified AS 5013.3
Staphylococci (Coagulase positive)	absent in 2.5 g	Modified AS 5013.12.3
Salmonella	absent in 20 g	Modified Rappaport – Vassiliadis Soy
Listeria	absent in 20 g	FDA Bact. Anal. 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.