CHYMOSIN B from *KLUYVEROMYCES LACTIS* containing the PROCHYMOSIN B GENE

Prepared at the 53rd JECFA (1999) and published in FNP 52 Add 7 (1999), superseding tentative specifications prepared at the 37th JECFA (1990), published in FNP 52 (1992). ADI "Not specified" established at the 37th JECFA in 1990.

SYNONYMS Rennin, milk-clotting enzyme, chymosin, chymosin B, aspartyl protease

C.A.S. number 9001-98-3

SOURCES Produced extracellularly by the controlled fermentation of *Kluyveromyces lactis* containing the bovine prochymosin B gene. The fermentation broth is adjusted to pH 2 to convert prochymosin to chymosin, which also kills the production cells. Chymosin is separated from the cell material by filtration and further purified by clarification with diatomaceous earth followed by several cell filtrations and one ultrafiltration.

Active principles Chymosin

Systematic names and numbers None (EC 3.4.23.4)

Reactions catalyzed Cleaves a single bond in kappa-casein

DESCRIPTION Clear, colourless or slightly coloured aqueous solutions containing the active enzyme

FUNCTIONAL USES Enzyme preparation
Used in clotting of milk for cheese production

GENERAL SPECIFICATIONS Must conform to the General Specifications for Enzyme Preparations used in Food Processing (see Volume Introduction)

CHARACTERISTICS

IDENTIFICATION

Milk clotting activity (Vol. 4) The sample shows milk clotting activity