



DELTAGEN

A Member of the Marigot Group



Australia

NEUTRAL PROTEASE A

FOOD GRADE PRODUCT

DESCRIPTION

NEUTRAL PROTEASE A is a proteinase, hydrolysing peptide bonds with preference for leucine and phenylalanine residues (E.C No 3.4.24.4). **NEUTRAL PROTEASE A** is produced by the controlled fermentation of *Bacillus subtilis*.

PHYSICAL FORM

A dark brown liquid.

INGREDIENTS

Neutral protease enzyme concentrate.
Stabilisers

SPECIFICATIONS

All methods of analysis available on request.

Activity

Neutral Protease NP u/ml : >45,000

Physical

Specific gravity : 1.15 g/ml typical

pH : 5.4 typical

Heavy Metals

Meets FCC specification for food grade enzymes

Total Heavy Metals : <40ppm

Lead : <10ppm

Arsenic : <3ppm

Microbiological

T.V.C : <50,000/ml

Coliforms : <30CPU

Salmonella : absent in 25g

E.Coli : absent in 25g

Yeasts & Moulds : <200/ml
T.E : <30/ml

APPLICATIONS

NEUTRAL PROTEASE A is used in the addition to the mash tun for adjunct brewing barley and can also be used to improve alpha-amino-nitrogen figures in an all malt mash. **NEUTRAL**

PROTEASE A can also be used in the Baking Industry and in the production of protein hydrolysates.

DOSE RATES

The dose rate will vary depending on the use of barley or malt etc. The recommended dose rates are as follows:

(a) Malt : 0.01 - 0.03%
(b) Barley : 0.04 - 0.05%

ACTIVITY PROFILE

The optimum temperature for **NEUTRAL PROTEASE A** is 55°C with >80% activity in the range of 45 - 63°C. The optimum pH for **NEUTRAL PROTEASE A** is pH 7.5 with > 80% activity in the range pH 6.5 - 8.5.

STORAGE & SHELF LIFE

When stored in cool, dry conditions, **NEUTRAL PROTEASE A** will lose less than 10% of its declared enzyme activity over a 6 month period.

APPROVAL

NEUTRAL PROTEASE A meets the requirements for use in food processing as designated by M.A.F.F.

SAFETY/HANDLING

In case of spillage or accidental contact rinse area thoroughly with water. A separate leaflet on safe handling is available on request.