

Lipomod™ 224P - L224P

- Mixed esterase/lipase/protease
- EMC production
- Short chain fatty acid release
- Cheddary type flavour
- Contains animal derived enzymes

The Lipomod™ range of products hydrolyses triglycerides to liberate fatty acids. These fatty acids have strong flavour characteristics and are responsible for the flavours associated with cheese products.

The degradation of proteins and peptides by proteases can also contribute to the flavour of a dairy-based product. These enzymes are widespread in nature and useful for cost effective production of EMCs.

Lipomod™ 224P contains both lipase and esterase activity which result in the release of a wide spectrum of fatty acids of differing chain lengths when applied to manufacture of EMCs.

The presence of a low level of protease activity also contributes protein notes to the overall flavour.



SPECIFICATION

Activity	21 000 Esterase units/gram
Biological Source	Porcine Pancreas
Form	Off white powder
Working pH	5 - 8
Temperature range	40 - 50°C

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APPLICATION & DOSAGE

Lipomod™ 224P has optimum activity at neutral pH but is still active at pH 5, so no pH adjustments are required whether milk, milk fat or actual cheese is used. In production of EMC the shredded cheese is mixed with emulsifying agents to obtain a slurry of 40 -55% dry solids. This is pasteurised and cooled to 40 - 50°C. Lipomod™ 224P should then be added at 0.1 to 0.3% on solids and the mix incubated. The incubation time could be from 8 - 36 hours and will depend on the enzyme dose, temperature and substrate. The flavour intensity will increase as reaction proceeds. Trials will be necessary to determine the exact conditions. The enzyme is deactivated above 80°C. If the protease results in a flavour deemed too bitter then the debittering product Flavorpro™ 192P might be incorporated to reduce this.

HEALTH AND SAFETY

Always read the Health and Safety sheet (MSDS) before use and retain. If you are in any doubt about recommended product handling and safety, please contact Biocatalysts before use. Generally, when using enzymes avoid contact with the skin and eyes and do not breathe dusts or aerosols containing them.

STORAGE

Activity will remain above the minimum analysis specification for at least 6 months from the date of the Batch Certificate of Analysis, when stored below 20°C.

ALLERGENS

Lactose is used as a diluent.

FOOD STATUS

Prepared from enzymes of GRAS status and manufactured to FCC/JECFA/WHO/FAO recommendations for enzymes used in food processing.

QUALITY

1. Food Safety Policy

The company operates a Hazard Analysis at Critical Control Points (HACCP) system. This ensures that ingredients and the production environment are regularly monitored for contamination and that the processes are designed to produce safe products every time.

2. Good Manufacturing Practice (GMP)

The company's integrated management system encompasses Total Quality, Health and Safety, Food Safety and GMP.

3. ISO9001

Biocatalysts Ltd is certified to BS ISO9001: 2000. Regular Audits are carried out by the British Standards Institute (BSI) to ensure continuing compliance with the standard.

AVAILABILITY

Powders: standard 25kg nett poly-lined fibre kegs. Non-standard quantities of 1kg and 5kg are also available for some products, please enquire.

The production micro-organism used in this product is not a GMO. Within the proposed guidelines of the European Union regarding Genetically Modified products, the above product would be classed as GMO free.

