

## Lipomod™ 41P - L041P

- Animal and fungal lipase blend for flavour production from soft fats
- Ideal for chicken fat hydrolysis
- Suitable for fatty-type meat flavour production
- Ideal for fatty acid production as precursors for maillard reactions

Lipomod™ 41P is designed for the production of meaty flavours from soft animal fat such as chicken fat. It contains both animal and fungal lipases to give efficient break down of animal fat. The nature of the enzyme blend gives it good activity against short chain fatty acids such as C4.

Lipomod™ 41P can also be used for butter oil hydrolysis where it will give a very piquant hydrolysis product.



### SPECIFICATION

Activity	Lipase 2000 U/g (Olive oil as substrate) Esterase 45 U/g (Unstandardised) (Tributyryn as substrate)
Biological Source	Calf and <i>Rhizopus niveus</i>
Form	Off-white to cream powder
Working pH	7.0 - 9.0
Temperature range	35 - 45°C

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## APPLICATION & DOSAGE

The activity of the Lipomod™ 41P is very dependent on the oil globule size in the emulsion. So to obtain maximum activity as fine an emulsion as possible should be produced. Many emulsifiers can be used to aid in the production of the emulsion. Natural emulsifiers such as cholate and lecithin are particularly good, but many artificial emulsifiers are also suitable. A water in oil emulsion of about 50% should be made and the pH set to about 8.0.

The pH will drop during the course of the reaction. pH control is generally not required as the lipases will continue to function even at low pH values of 4.0 - 6.0. A temperature of 40 - 50°C is recommended, but it should be high enough so that the fat is liquid and not solid. For initial trials an enzyme dose rate of 0.07 - 0.35% w/w (on fat) and an incubation time of 16 hours is recommended.

### 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 3 months from the date of the Batch Certificate of Analysis, when stored below 20°C.

### ALLERGENS

Soy and wheat are used in the manufacture.

### FOOD STATUS

Produced 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.

