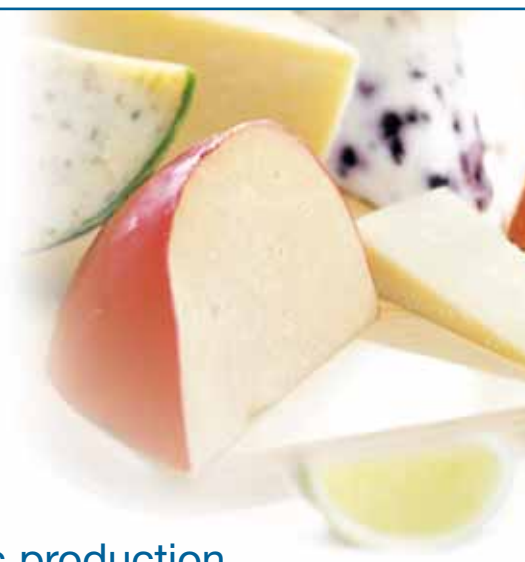


Lipomod™ 34P - L034P

- General fat hydrolysis
- Highly active on C4 fatty acids
- Cost effective base lipase for emc production
- Vegetarian and kosher status

Lipases and esterases hydrolyse triglycerides to liberate fatty acids. These fatty acids have strong flavour characteristics and are responsible for the flavours associated with many products derived from both dairy and non dairy fats. Under appropriate conditions they can also catalyse esterification reactions of both natural and artificial substrates. These enzymes are widespread throughout nature.

Lipomod™ 34P is derived from the yeast *Candida*. It contains both lipase and esterase activity and is broadly active producing mild flavours but more specific for short chain fatty acids, particularly C4. It is active against all 3 positions on the triglyceride molecule with both hard and soft fats. Since it is a non animal product it useful for vegetarian and kosher products.



SPECIFICATION

Activity	115 000 Lipase U/g (typical) 65 000 Esterase U/g (approx)
Biological Source	<i>Candida cylindracea (rugosa)</i>
Form	White to off white powder
Working pH	5 - 8
Temperature range	40 - 55°C

sheet no: 001/2

issue date: 24:04:04



APPLICATION & DOSAGE

Lipomod™ 34P has a broad pH profile so no pH adjustments are generally required. An exception would be where almost complete hydrolysis of a high fat emulsion is required then it is best to keep the pH around 7. Temperatures around 40 - 45°C are recommended. For hard fats the temperature should be sufficiently high so that the fat is in a liquid state. The fat should be in the form of a fine emulsion (50% is suitable). The smaller the globule size the faster the reaction. Lipomod™ 34P is a very active preparation and only small amounts are needed when compared to other lipase preparations. We do not recommend using Lipomod™ 34P on its own for EMC production, but it is a very cost effective lipase and can be used in combination with some of our other EMC lipases. (See Technical Bulletin 103). The recommended dose rate depends on the application. A dose of 0.01 - 0.02% w/w on fat is suggested for general fat hydrolysis but trials will be required in order to determine the exact conditions necessary.

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 12 months from the date of the Batch Certificate of Analysis, when stored below 25°C.

ALLERGENS

Soybean is used as a fermentation substrate. Lactose is used as the diluent.

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 1kg plastic pot and 5kg plastic pail. Non-standard quantities of 15kg 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.

