

Depol™ 667P - D667P

- Broad action glucanase
- Lysis of moribund yeast cells
- Powerful solublising action
- Increases extract yield

Depol™ 667P is used to degrade insoluble cell wall debris during the production of yeast extracts. Glucans and mannans in the yeast cell wall are poorly degraded during autolysis, resulting in viscous extracts. Hydrolytic enzymes can be added to help degrade this material and speed up autolysis. This can compensate for the lack of endogenous enzymes when damaged or moribund cells are used.

Depol™ 667P contains a standardised blend of glucanases from strains of *Trichoderma* sp. which have been specially formulated to degrade beta-glucans and other insoluble yeast cell wall debris. Addition of Depol™ 667P during autolysis can reduce viscosity, improve solubilization and clarification resulting in increased yields of yeast extract. Full details of this process are in the Yeast Technical Bulletin (TB 108).



SPECIFICATION

Activity	Beta glucanase 12,000 U/g
Biological Source	<i>Trichoderma</i> sp.
Form	Powder
Working pH	5.0 - 7.0
Temperature range	45 - 55°C

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APPLICATION & DOSAGE

Depol™ 667P is added to the yeast cream during autolysis. During this stage the enzyme catalysed hydrolysis is achieved commercially by relying on the yeast's own enzymes. The yeast cream is adjusted to approximately 28% dry solids and pH5. The exact dose of Depol™ 667P added will depend on the condition of the yeast and should be determined in trials. As a starting point we recommend trying 0.02 - 0.10% (w/w) Depol™ 667P based on dry cell weight to help solubilisation and also support slow autolysing cells. Higher doses of 0.2 - 1.0% (w/w) may be needed if dead yeast cells are used. We would normally recommend using an additional protease such as Promod™ 144P (P144P) at about 0.04% w/w of the yeast cream. Increase the temperature over 5 - 8 hours to 55°C and hold at this temperature for 24 hours. Then further increase the temperature to about 70°C and hold for another 15 hours. The extract can then be centrifuged to remove debris and pasteurised.

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 20°C.

ALLERGENS

Soy protein hydrolysate is used as a fermentation substrate. Lactose is used as the diluant.

FOOD STATUS

Prepared from enzymes of GRAS status and manufactured to FCC/JECFA/WHO/FAO recommendations for enzyme 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.

