

Flavorpro® 91MDP

F091MDP

Features/Benefits

- High performance exopeptidase
- Significant debittering action (bitterness control in EMC)

Flavorpro® 091MDP is an exopeptidase preparation from a fungal source with low levels of endopeptidase activity. In Enzyme Modified Cheese (EMC) application, Flavorpro® 91MDP is useful for its debittering action. It removes the excessive bitterness that can be produced when using animal and bacterial proteases. Since it is a non-animal product Flavorpro® 91MDP is suitable for vegetarian products.

Exopeptidases cleave amino acids from the C- or N-terminus of a polypeptide chain. In EMC, the hydrolysis of cheese proteins by endopeptidases can give rise to unwanted bitter flavours due to the accumulation of small hydrophobic peptides. Exopeptidases can be used to control bitterness by removing bitter-tasting peptides.

Specification

Activity	Leucine Aminopeptidase 315 - 385 U/g
Biological Source	<i>Aspergillus sp.</i>
Form	Off-white to brown powder
Optimum pH Range	7.0-9.0
Optimum Temperature Range	50 - 70°C

Application & Dose

In EMC production, the shredded cheese is mixed with water and emulsifying agents to obtain an EMC slurry of 55-85% of cheese (40-55% of dry solids). The slurry is pasteurised and cooled to 40-50°C, prior to the addition of the enzymes. Flavorpro® 91MDP is ideal as a second protease enzyme to be used in combination with our dairy proteases (Promod® 511MDP, Promod® 845MDP, Promod® 903MDP) which on their own could produce a slightly too bitter EMC. The recommended dosage for F091MDP is 0.05-0.1% w/w on cheese in the EMC slurry. The mixture can then be incubated for 8-36h, depending on the enzyme dose, incubation temperature and substrate. Trials will be required to determine the exact conditions in order to reduce the bitterness to the desired level. The enzyme is deactivated above 80°C at the end of the incubation. Please contact Biocatalysts for further technical support.

Health & Safety

Always read the Material Safety Datasheet (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. MSDSs are available in other languages. Please contact Customer Services.

Storage

Powders: Activity will remain within specification for at least 12 months from the date of manufacture when stored at 0 - 20°C.

Allergens

Refer to allergen statement.

Food Status

Material complies with the JECFA/FAO/WHO and FCC recommended specifications for enzymes used in food processing.

GM Status

This product has been manufactured using a fermentation process of a microbial organism that has not been altered using modern biotechnology. This product does therefore not require labelling as GMO on food labels.

Quality & Food Safety

Biocatalysts 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.

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

Biocatalysts Ltd is certified to ISO9001, ISO14001, ISO45001 and FSSC 22000.

Certificates are available on request from the Customer Services Department.

Availability

Powders: standard 25kg net poly-lined, 100% recyclable cardboard box. Non-standard quantities are also available for some products, please enquire.