Safety evaluation of the food enzyme phospholipase A1 from the non-genetically modified Fusarium commune strain LFC

1 Report

Status Finished
EFSA question number EFSA-Q-2025-00643
Adopted 09-09-2026
Previous authorisations The applicant has submitted a dossier in support of the application for authorisation of the food enzyme phospholipase A1 from the non-genetically modified Fusarium commune strain LFC. Additional information were requested during the risk assessment phase.

2 Production method

Manufacturing The production strain is grown as a pure culture using a typical industrial medium in a submerged, fed-batch fermentation system with conventional process controls in place.
Formulation Unknown
Downstream processing After completion of the fermentation, the solid biomass is removed from the fermentation broth by filtration and thermally treated to inactivate the production microorganism. The filtrate containing the enzyme is then further purified and concentrated, including an ultrafiltration step in which the enzyme protein is retained, while most of the low molecular mass material passes the membrane and is discarded.
Average TOS (w/w) 5.7 %
Average activity/TOS 22.7 CPLU/mg TOS

3 EFSA tested impurities

Production strain and recombinant DNA The absence of viable cells of the production strain in the food enzyme was demonstrated.

Allergenicity In conclusion, the Panel considered that, under the intended conditions of use, a risk of allergic reactions upon dietary exposure to this food enzyme cannot be excluded, but that the likelihood is low.

Antimicrobial resistance No antimicrobial activity was detected in any of the tested batches.

Antifoam agents /

Other The presence of beauvericin, fusaric acid and moniliformin was examined in all food enzyme batches and was below the limits of detection (LoD) of the applied analytical methods

Pathogens

Microbiological quality indicators

Metals

Coments LoD: Pb = 0.001 mg/kg. LoDs: beauvericin = 50 µg/kg; fusaric acid = 50 µg/kg; moniliformin = 50 µg/kg