Safety evaluation of the food enzyme asparaginase from the non-genetically modified Saccharomyces cerevisiae strain ARY-1

1 Report

Status Finished
EFSA question number EFSA-Q-2023-00656
Adopted 25-06-2025
Previous authorisations The applicant has submitted a dossier in support of the application for authorisation of the food enzyme asparaginase from non-GM Saccharomyces cerevisiae, Acrylow™ (ARY-1). Additional information, requested from the applicant during the assessment phase on 21 May 2024 and 28 February 2025, was received on 18 June 2024 and 23 April 2025, respectively

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 yeast is separated from the fermentation broth by centrifugation and rinsed with water. The yeast cream containing the enzyme is refrigerated and dewatered by filtration. The dewatered yeast is then blended with an emulsifier, extruded and finally dried in fluidised beds prior to analysis
Average TOS (w/w) 89.8 %
Average activity/TOS 0.2 ASNU/mg TOS

3 EFSA tested impurities

Production strain and recombinant DNA The applicant stated that the food enzyme contains viable yeast cells

Allergenicity the Panel considered that, under the conditions of use, a risk of allergic reactions upon dietary exposure to this food enzyme, particularly for yeast allergic individuals, cannot be excluded. However, the likelihood of such reactions will not exceed the risk of reactions after yeast consumption

Antimicrobial resistance /

Antifoam agents /

Other /

Pathogens

Microbiological quality indicators

Metals

Coments LoQ Pb = 0.02 mg/kg.