Summary of the application: Protein powder from Alphitobius diaperinus larvae

Applicant: Ynsect NL B.V., Harderwijkerweg 141b, 3852 AB Ermelo, the Netherlands.

This novel food dossier contains the application for the novel food status of a protein powder from the Alphitobius diaperinus larvae (also called IPC). The fraction is obtained using a combination of hydrolysis and separation. The novel food is a soluble powder that is high in protein.

The larvae used for the production of Alphitobius diaperinus products have a short life cycle, and are reared in a closed farming system on 100% vegetable GMP+ certified feed (substrate group A: Animal feed materials according to the EU catalogue of feed materials (Regulation (EU) No 68/2013) and authorized as feed for food producing animals). The Alphitobius diaperinus larva are further processed into a hydrolysed insect protein powder.

The protein quality is high for all amino acids according to the limits set by FAO (FAO, 2013). Analyses and scientific studies show no safety concerns for heavy metals, mycotoxins, pesticides, benzoquinones, acrylamide, prions, dioxins and PCBs, PAHs, and ANFs.

The microbial data does not exceed the limits as set in Regulation (EC) No 2073/2005. Concentrations of minerals and vitamins are not likely to exceed the upper limits based on the calculated anticipated intake data. When maximum use levels are considered, no adverse nutritional effects are expected when the hydrolysed insect protein powder is habitually used in the European dietary context. Literature search did not reveal concerns regarding the absorption, digestion, metabolism and excretion of proteins, and minerals. The novel food is considered non-genotoxic.

Allergenic potential and cross-reactivity from Alphitobius diaperinus larvae warrants mandatory allergenicity labelling, as cross-reactivity exists with crustaceans, molluscs and house dust mite and the product contains gluten.

We conclude that the protein powder is safe as a food ingredient at the proposed conditions of use and the proposed intake levels.