

Safety Assessment RP16 Chromium Chelate of DL-Methionine

Area of research interest: [Research projects](#)

Project status: Completed

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Summary

An application was submitted to the Food Standards Agency (FSA) in January 2021 from Zinpro Animal Nutrition (“the applicant”) for the authorisation of a chromium chelate of DL-methionine (Avalia@Cr) as a feed additive under the category of ‘zootechnical’ additives, functional group ‘other zootechnical additives’. The additive is a chromium chelate of DL-methionine, proposed to be used at a minimum dose of 0.2 mg/kg chromium (Cr) and a maximum dose of 0.5 mg/kg of complete feed (moisture content of 12%), and aims to increase milk yield in dairy cows.

This feed additive had its application of authorisation assessed by the European Food Safety Authority (EFSA), which was published in 2020. FSA/FSS have reviewed the information available, including the [EFSA opinion](#), to conclude on the Identity and Characterisation, and Safety sections of the dossier. No conclusion could be reached on the Efficacy of the additive.

The Animal Feed and Feed Additives Joint Expert Group and its successor body, the Advisory Committee on Animal Feedingstuffs (ACAF), were asked to review the Efficacy section of the dossier and the supplementary information submitted by the Applicant, and to advise the Food Standards Agency and Food Standards Scotland (FSA/FSS) in evaluating the dossier.

The FSA/FSS concluded, based on their review of the information available, including the EFSA opinion, and confirmed that the additive, when used at a maximum dose of 0.5 mg Cr/kg of complete feed, is safe for the target species with a 10-fold margin of safety. The additive can be considered safe for the environment. Based on the weight of evidence of in vivo genotoxicity studies together with previous evaluations of the genotoxicity and carcinogenicity of Cr (III) and its salts, and the limited exposure expected through the diet, the additive can be considered safe to consumers when used in dairy cows at a maximum level of 0.5 mg/kg of complete feed. The additive is not an eye or skin irritant, and is a skin sensitiser. Given the uncertainties and the high dusting potential of the additive, measures should be taken to minimise exposure to users and workers through inhalation.

The FSA/FSS concluded, based on the ACAF’s advice, that the additive has the potential to be efficacious for increasing milk yield in dairy cows at the recommended dose of 0.2-0.5 mg/kg of complete feed with a moisture content of 12%.

The views of AFFAJEG/ACAF have been taken into account in the safety assessment which represents the opinion of the FSA and FSS. This document replaces the previous Safety Assessment published in 2023.

Safety assessment

PDF

[View RP16 Assessment of safety and efficacy of a chromium chelate of DL-methionine \(Avalia@Cr\) as PDF\(Open in a new window\)](#) (380.21 KB)