

Scientific Opinion on the safety and efficacy of clinoptilolite of sedimentary origin for all animal species

Type: Opinion of the Scientific Committee/Scientific Panel

On request from: European Commission

Question number: EFSA-Q-2012-00582

Adopted: 12 December 2012

Published: 22 January 2013

Affiliation: European Food Safety Authority (EFSA), Parma, Italy

Abstract

The additive clinoptilolite of sedimentary origin contains at least 80 % clinoptilolite (hydrated calcium aluminosilicate) and a maximum of 20 % clay minerals. Regarding the limited database and partly controversial findings, the FEEDAP Panel concluded that 10 000 mg clinoptilolite/kg complete feed could be considered to be safe for all animal species. Clinoptilolite is essentially not absorbed and is excreted with the faeces. There is no evidence that clinoptilolite will be degraded during its passage through the gastrointestinal tract of target animals. The consumer is therefore not exposed to clinoptilolite as a result of its use in animal nutrition; consequently, no risk for the consumer will arise. With regard to the high dusting potential of the additive, and in the absence of data on its irritation and sensitisation potential, the FEEDAP Panel considers it prudent to treat the additive as an irritant to the skin and eyes, a dermal sensitiser and an inhalation toxicant. The use of clinoptilolite in animal nutrition does not pose a risk for the environment. Based on data on a large variety of compound feeds, the additive is considered to have the potential to be effective as an anticaking agent. No data were available to allow conclusions to be drawn on its efficacy as a pellet binder. However, as the physical properties required for an anticaking and a pellet-binding additive are similar, and the efficacy of clinoptilolite as an anticaking agent is proven, the FEEDAP Panel considers it likely that the additive also has the potential to be effective as a pellet binder.

Summary

Following a request from the European Commission, the Panel on Additives and Products or Substances used in Animal Feed (FEEDAP) was asked to deliver a scientific opinion on the safety and efficacy of clinoptilolite of sedimentary origin as a technological additive, functional group binder. The additive clinoptilolite of sedimentary origin contains at least 80 % clinoptilolite (hydrated calcium aluminosilicate) and a maximum of 20 % clay minerals.

Regarding the limited database and partly controversial findings, the FEEDAP Panel concluded that 10 000 mg clinoptilolite/kg complete feed could be considered to be safe for all animal species.

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With regard to the high dusting potential of the additive, and in the absence of data on its irritation and sensitisation potential, the FEEDAP Panel considers it prudent to treat the additive as an irritant to the skin and eyes, a dermal sensitiser and an inhalation toxicant.

The use of clinoptilolite in animal nutrition does not pose a risk for the environment. Based on data on a large variety of compound feeds, the additive is considered to have the potential to be effective as an anticaking agent. No data were available to allow conclusions to be drawn on its efficacy as a pellet binder. However, as the physical properties of an anticaking and a pellet-binding additive must be similar in binding small particles by adsorption, the FEEDAP Panel considers it likely that the additive also has the potential to be efficacious as a pellet binder.