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## Safety and efficacy of sodium and potassium alginate for pets, other non food-producing animals and fish

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### Abstract

Sodium and potassium alginate are intended to be used as technological additives (functional groups: emulsifiers, stabilisers, thickeners, gelling agents and binders). Sodium alginate is intended to be used in feedingstuffs for pets, other non food-producing animals and fish, with no maximum recommended use level. Potassium alginate is intended to be used in feedingstuffs for cats and dogs at levels up to 40,000 mg/kg feed (on dry matter). Since the functional properties of the additives are determined by the alginate content, sodium and potassium alginate were considered equivalent. The maximum dose considered safe for cats, dogs, other non food-producing animals, salmonids and other fish is 40,000 mg alginates (sodium and potassium salts)/kg complete feed. The use of alginates in feedingstuffs for fish is of no concern for the consumer. Alginates are reported not to be irritant to the skin but mildly irritant to the eyes. They are considered as potential sensitisers to the skin and the respiratory tract. Alginates are high-molecular-weight polymers naturally occurring in brown algae. Their use in feedingstuffs for fish does not pose a risk for the aquatic environment. Alginates are effective as stabilisers, thickeners, gelling agent and binders. No conclusion could be drawn on the efficacy of alginates as emulsifiers.

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**Keywords:** sodium alginate, potassium alginate, technological additive, pets, safety, efficacy

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**Note:** The full opinion will be published in accordance with Article 8(6) of Regulation (EC) No 1831/2003 once the decision on confidentiality, in line with Article 18(2) of the Regulation, will be received from the European Commission.

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## 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 sodium alginate and potassium alginate.

Sodium and potassium alginate are intended to be used as technological additives, functional groups: (c) emulsifiers, (d) stabilisers, (e) thickeners, (f) gelling agents and (g) binders in feedingstuffs. Sodium alginate is intended to be used in feedingstuffs for pets, other non food-producing animals and fish, with no maximum recommended use level. Potassium alginate is intended to be used in feedingstuffs for cats and dogs at levels up to 40,000 mg/kg feed (on dry matter).

Since the functional properties of the additives are determined by the alginate content, sodium and potassium alginate were considered equivalent.

The maximum dose considered safe for cats, dogs, other non food-producing animals, salmonids and other fish is 40,000 mg alginates (sodium and potassium salts)/kg complete feed.

The use of alginates in feedingstuffs for fish is of no concern for the consumer.

Alginates are reported not to be irritant to the skin but mildly irritant to the eyes. They are considered as potential sensitisers to the skin and the respiratory tract.

Alginates are high-molecular-weight polymers naturally occurring in brown algae. Their use in feedingstuffs for fish does not pose a risk for the aquatic environment.

Alginates are effective as stabilisers, thickeners, gelling agent and binders. No conclusion could be drawn on the efficacy of alginates as emulsifiers.