INTERNATIONAL STANDARD

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Animal feeding stuffs — Determination of furazolidone content — Method using high-performance liquid chromatography

Aliments des animaux — Dosage de la furazolidone — Méthode par chromatographie liquide à haute performance

Reference number
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 14797 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, Subcommittee SC 10, *Animal feeding stuffs*.

Annexes A to C of this International Standard are for information only.

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Animal feeding stuffs — Determination of furazolidone content — Method using high-performance liquid chromatography

1 Scope

This International Standard specifies a high-performance liquid chromatographic (HPLC) method for the determination of the furazolidone content of premixtures and animal feeding stuffs.

The method is applicable to animal feeding stuffs with a furazolidone content of 25 mg/kg to 5 000 mg/kg and to premixtures with a mass fraction of furazolidone of up to 20 % [formerly written as 20 % (*m*/*m*)].

NOTE 1 For animal feeding stuffs, the furazolidone content is expressed in milligrams per kilogram; for premixtures, as a mass fraction in percent [% (*m*/*m*)].

NOTE 2 Furazolidone is a chemotherapeuticum belonging to the group of nitrofuranes. Nitrofuranes are bacteriostatic or bactericidal against Gram-positive and Gram-negative microorganisms and against some moulds and protozoa.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 6498:1998, *Animal feeding stuffs — Preparation of test sample.*

3 Principle

Furazolidone is extracted from the sample with a mixture of acetonitrile and methanol. Animal feeds are pre-wetted with water. The extract of animal feeds is purified through a short aluminum oxide column and subsequently diluted with water. The extract of premixtures is directly diluted with a mixture of water, acetonitrile and methanol. The final extract is analysed by reverse-phase HPLC with UV detection at a wavelength of 365 nm (see references [1] to [3]).

4 Reagents

Use only reagents of recognized analytical grade.

4.1 Water, demineralized or deionized, with resistivity of at least 10 MΩ·cm, or water of at least equivalent purity.

4.2 Extraction solvent: mixture of acetonitrile and methanol (1:1 by volume).

Combine equal volumes of acetonitrile and methanol. Mix well and allow to adjust to room temperature before use.

4.3 Dilution solvent: mixture of extraction solvent (4.2) and water (4.1) (35:65 by volume).

Mix 350 ml of extraction solvent (4.2) with 650 ml of water (4.1).