
**Animal feeding stuffs — Determination of
aflatoxin B₁ content of mixed feeding
stuffs — Method using high-performance
liquid chromatography**

*Aliments des animaux — Détermination de la teneur en aflatoxine B₁ dans
les aliments composés — Méthode par chromatographie liquide à haute
performance*



Foreword

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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 14718 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, Subcommittee SC 10, *Animal feeding stuffs*.

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Animal feeding stuffs — Determination of aflatoxin B₁ content of mixed feeding stuffs — Method using high-performance liquid chromatography

1 Scope

This International Standard specifies a high-performance liquid chromatographic (HPLC) method for the determination of aflatoxin B₁ content of animal feeding stuffs including those containing citrus pulp.

The lower limit of determination is 1 µg/kg.

NOTE 1 This International Standard may be applicable for the determination of the aflatoxin B₁ content of a number of raw materials and straight feeding stuffs such as corn gluten, groundnut, palm kernel, copra, citrus pulp, tapioca, soya bean, rice bran, pollard, rape seed, niger seed and cotton seed (see references [1] and [2]). These materials were, however, not included in the collaborative testing of the method.

NOTE 2 This International Standard may also be applicable for the determination of the content of the sum of the aflatoxins B₁, B₂, G₁ and G₂. However, the method has not been validated for this parameter by collaborative testing.

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, this publication do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO editions maintain registers of currently valid International Standards.

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

3 Principle

The sample is extracted with chloroform. The extract is filtered and an aliquot portion is purified on a Florisil¹⁾ cartridge and a C₁₈ cartridge. The final separation and determination is achieved by high-performance liquid chromatography (HPLC) using a reverse-phase C₁₈ column, followed by post-column derivatization with iodine or bromine, and fluorescence detection.

4 Reagents and materials

Use only reagents of recognized analytical grade.

1) Florisil® is the trade-name of a commercially available product. This information is given for the convenience of users of this International Standard and does not constitute an endorsement by ISO of this product. Equivalent products may be used if they can be shown to lead to the same results.