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BS ISO 14244:2014



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Oilseed meals — Determination of soluble proteins in potassium hydroxide solution

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Oilseed meals — Determination of soluble proteins in potassium hydroxide solution

*Tourteaux de graines oléagineuses — Détermination de la teneur en
protéines solubles en solution d'hydroxyde de potassium*



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Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 34, *Food products*, Subcommittee SC 2, *Oleaginous seeds and fruits and oilseed meals*.

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Oilseed meals — Determination of soluble proteins in potassium hydroxide solution

1 Scope

This International Standard specifies a method for the determination of soluble proteins in potassium hydroxide solution in soya meals, rapeseed meals and sunflower pellets, which are then assayed using the Kjeldahl method as specified in ISO 5983-1 and ISO 5983-2.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 565, *Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings*

ISO 5500, *Oilseed residues — Sampling*

ISO 5502, *Oilseed residues — Preparation of test samples*

ISO 5983-1, *Animal feeding stuffs — Determination of nitrogen content and calculation of crude protein content — Part 1: Kjeldahl method*

ISO 5983-2, *Animal feeding stuffs — Determination of nitrogen content and calculation of crude protein content — Part 2: Block digestion and steam distillation method*

3 Principle

The sample is dispersed in a solution of potassium hydroxide of approximately 12,5 pH, stirred and centrifuged. Then, the nitrogen content of the clarified liquid is determined by the Kjeldahl method for crude protein and compared with the value of crude protein of the original sample.

NOTE The Kjeldahl method is described in ISO 5983-1 and ISO 5983-2.

4 Reagents

WARNING 1 The tests, according to this International Standard, involve risks for persons and the possibility of releasing substances which might cause damage to the environment. For this reason, appropriate measures shall be taken to prevent risk, protect personnel, and avoid the release of the substances involved.

WARNING 2 Attention shall be paid to preserving the environment in all phases of this activity. For further information, it is recommended to make reference to ASTM D4447, which describes the classification of the kind of residues and pretreatment methods for their recovery or disposal.

Use only reagents of recognized analytical grade.

4.1 Potassium hydroxide.

4.2 Potassium hydroxide solution, $c(\text{KOH}) = 0,036 \text{ mol/l}$.

Preparation: Dissolve 2,4 g of potassium hydroxide (mass fraction $w = 85 \text{ g/100 g}$) in 1 000 ml of distilled water.