



NSAI
Standards

Irish Standard
I.S. EN ISO 5983-2:2009

Animal feeding stuffs - Determination of nitrogen content and calculation of crude protein content - Part 2: Block digestion and steam distillation method (ISO 5983-2:2009)

I.S. EN ISO 5983-2:2009

Incorporating amendments/corrigenda issued since publication:

<i>This document replaces:</i> I.S. EN ISO 5983-2:2005	<i>This document is based on:</i> EN ISO 5983-2:2009 EN ISO 5983-2:2005	<i>Published:</i> 1 June, 2009 7 September, 2005
---	---	--

This document was published under the authority of the NSAI and comes into effect on: 19 August, 2009	ICS number: 65.120
--	-----------------------

NSAI 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie	Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie	Price Code: H
---	---	---	--------------------------------

Údarás um Chaighdeáin Náisiúnta na hÉireann

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 5983-2

June 2009

ICS 65.120

Supersedes EN ISO 5983-2:2005

English Version

**Animal feeding stuffs - Determination of nitrogen content and
calculation of crude protein content - Part 2: Block digestion and
steam distillation method (ISO 5983-2:2009)**

Aliments des animaux - Dosage de l'azote et calcul de la
teneur en protéines brutes - Partie 2: Méthode de digestion
en bloc et distillation à la vapeur (ISO 5983-2:2009)

Futtermittel - Bestimmung des Stickstoffgehaltes und
Berechnung des Rohproteingehaltes - Teil 2:
Blockaufschluss- und Dampfdestillationsverfahren (ISO
5983-2:2009)

This European Standard was approved by CEN on 30 May 2009.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

EN ISO 5983-2:2009 (E)

Contents

Page

Foreword.....3

Foreword

This document (EN ISO 5983-2:2009) has been prepared by Technical Committee ISO/TC 34 "Food products" in collaboration with Technical Committee CEN/TC 327 "Animal feeding stuffs - Methods of sampling and analysis", the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 5983-2:2005.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of ISO 5983-2:2009 has been approved by CEN as a EN ISO 5983-2:2009 without any modification.

This page is intentionally left BLANK.

INTERNATIONAL STANDARD

ISO
5983-2

Second edition
2009-06-01

Animal feeding stuffs — Determination of nitrogen content and calculation of crude protein content —

Part 2: Block digestion and steam distillation method

*Aliments des animaux — Dosage de l'azote et calcul de la teneur en
protéines brutes —*

Partie 2: Méthode de digestion en bloc et distillation à la vapeur



Reference number
ISO 5983-2:2009(E)

© ISO 2009

ISO 5983-2:2009(E)

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2009

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword.....	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions.....	2
4 Principle.....	2
5 Reagents	2
6 Apparatus	4
7 Sampling.....	4
8 Preparation of test sample.....	5
9 Procedure	5
9.1 General.....	5
9.2 Test portion	5
9.3 Determination.....	5
9.4 Blank test.....	6
9.5 Recovery tests	7
10 Calculation and expression of results.....	7
10.1 Calculation.....	7
10.2 Calculation of crude protein content.....	8
10.3 Expression of crude protein content results	8
11 Precision.....	8
11.1 Interlaboratory tests	8
11.2 Repeatability.....	9
11.3 Reproducibility	9
12 Test report	9
Annex A (informative) Results of interlaboratory tests.....	10
Annex B (informative) Results of a proficiency test; comparison of the colorimetric and potentiometric endpoint determination of the titration	14
Bibliography	15

ISO 5983-2:2009(E)

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

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.

ISO 5983-2 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 10, *Animal feeding stuffs*.

This second edition cancels and replaces the first edition (ISO 5983-2:2005), which has been technically revised.

ISO 5983 consists of the following parts, under the general title *Animal feeding stuffs — Determination of nitrogen content and calculation of crude protein content*:

- *Part 1: Kjeldahl method*
- *Part 2: Block digestion and steam distillation method*

Animal feeding stuffs — Determination of nitrogen content and calculation of crude protein content —

Part 2: Block digestion and steam distillation method

WARNING — The use of this method may involve the use of hazardous materials, operations and equipment. This part of ISO 5983 does not purport to address all the safety risks associated with its use. It is the responsibility of the user of this method to establish appropriate health and safety practices and determine the applicability of local regulatory limitations prior to use.

1 Scope

This part of ISO 5983 specifies a method for the determination of nitrogen content of animal feeding stuffs according to the Kjeldahl method, and a method for the calculation of the crude protein content.

It is suitable for use as a semi-micro rapid routine method using block digestion, copper catalyst, and steam distillation into boric acid.

The method is applicable to the determination of greater than 0,5 % mass fraction Kjeldahl nitrogen in animal feeding stuffs, pet foods, and their raw materials.

The method does not measure oxidized forms of nitrogen nor heterocyclic nitrogen compounds.

The method does not distinguish between protein nitrogen and non-protein nitrogen.

NOTE If it is of importance to determine the content of non-protein nitrogen, an appropriate method can be used.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referred document (including any amendments) applies.

ISO 1871, *Food and feed products — General guidelines for the determination of nitrogen by the Kjeldahl method*

ISO 6498, *Animal feeding stuffs — Guidelines for sample preparation*¹⁾

1) To be published. (Revision of ISO 6498:1998)

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-