Irish Standard
I.S. EN ISO 8968-1:2014

Milk and milk products - Determination of nitrogen content - Part 1: Kjeldahl principle and crude protein calculation (ISO 8968-1:2014)

I.S. EN ISO 8968-1:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

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Supersedes EN ISO 8968-1:2001, EN ISO 8968-2:2001

English Version

Milk and milk products - Determination of nitrogen content - Part 1: Kjeldahl principle and crude protein calculation (ISO 8968-1:2014)

Lait et produits laitiers - Détermination de la teneur en azote - Partie 1: Méthode Kjeldahl et calcul de la teneur en protéines brutes (ISO 8968-1:2014)

Milch und Milcherzeugnisse - Bestimmung des Stickstoffgehaltes - Teil 1: Kjeldahl-Verfahren und Berechnung des Rohproteingehaltes (ISO 8968-1:2014)

This European Standard was approved by CEN on 18 January 2014.

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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN ISO 8968-1:2014) has been prepared by Technical Committee ISO/TC 34 “Food products” in collaboration with Technical Committee CEN/TC 302 “Milk and milk products - 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of an identical text or by endorsement, at the latest by August 2014, and conflicting national standards shall be withdrawn at the latest by August 2014.

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 8968-1:2001, EN ISO 8968-2:2001.

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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 8968-1:2014 has been approved by CEN as EN ISO 8968-1:2014 without any modification.

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I.S. EN ISO 8968-1:2014

INTERNATIONAL STANDARD

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Milk and milk products — Determination of nitrogen content —

Part 1: Kjeldahl principle and crude protein calculation

Lait et produits laitiers — Détermination de la teneur en azote —
Partie 1: Méthode Kjeldahl et calcul de la teneur en protéines brutes

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Forewords

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. www.iso.org/directives

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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 and food products*, Subcommittee SC 5, *Milk and milk products* and the International Dairy Federation (IDF) and is being published jointly by ISO and IDF.

This second edition of ISO 8968-1|IDF 20-1 cancels and replaces the first edition of ISO 8968-1|IDF 20-1:2001, ISO 8968-2|IDF 20-2:2001, ISO 5549:1978/IDF 92:1979 and ISO/TS 17837|IDF/RM 25:2008 which have been technically revised.

The International Dairy Federation (IDF) is a worldwide federation of the dairy sector with a National Committee in every member country. Every National Committee has the right to be represented on the IDF Standing Committees carrying out the technical work. IDF collaborates with ISO in the development of standard methods of analysis and sampling for milk and milk products.

Draft International Standards adopted by the Standing Committees are circulated to the National Committees for voting. Publication as an International Standard requires approval by at least 50 % of IDF National Committees casting a vote.

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ISO 8968-1|IDF 20-1 was prepared by the International Dairy Federation and Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 5, *Milk and milk products*. It is being published jointly by ISO and IDF.

The work was carried out by the IDF-ISO Project Group on Nitrogen, of the Standing Committee on *Analytical Methods for Composition (SCAMC)*, under the aegis of its project leaders: Mr. R. Johnson (NZ), Mr. J. Romero (US), Dr. Barbano (US), Dr. Orlandini (IT), and Mr. Psathas (CY).

This second edition of ISO 8968-1|IDF 20-1 cancels and replaces the first edition of ISO 8968-1|IDF 20-1:2001, ISO 8968-2|IDF 20-2:2001, ISO 5549:1978/IDF 92:1979 and ISO/TS 17837|IDF/RM 25:2008 which have been technically revised.

INTERNATIONAL STANDARD

ISO 8968-1:2014(E)
IDF 20-1:2014(E)

Milk and milk products — Determination of nitrogen content —

Part 1:
Kjeldahl principle and crude protein calculation

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

1 Scope

This International Standard specifies a method for the determination of the nitrogen content and crude protein calculation of milk and milk products by the Kjeldahl principle, using traditional and block digestion methods.

The methods are applicable to:

— liquid cow's (whole, partially skimmed or skimmed milk), goat's and sheep's whole milk;

— hard, semi-hard and processed cheese;

— dried milk and dried milk products (including milk-based infant formulae, milk protein concentrate, whey protein concentrate, casein and caseinate).

The methods are not applicable to samples containing ammonium caseinate.

NOTE Inaccurate crude protein results will be obtained if non-milk sources of nitrogen are present in the products specified in this International Standard.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable to 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 385, *Laboratory glassware — Burettes*

ISO 8655-3, *Piston-operated volumetric apparatus — Part 3: Piston burettes*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
nitrogen content
mass fraction of nitrogen determined by the specified procedure

Note 1 to entry: It is expressed as a percentage.