TECHNICAL SPECIFICATION

ISO/TS 11869

IDF/RM 150

First edition
2012-01-15

Fermented milks — Determination of titratable acidity — Potentiometric method

Laits fermentés — Détermination de l'acidité titrable — Méthode potentiométrique

Reference numbers
ISO/TS 11869:2012(E)
IDF/RM 150:2012(E)

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

International Dairy Federation
Silver Building • Boulevard Auguste Reyers 70/B • B-1030 Brussels
Tel. + 32 2 733 98 88
Fax + 32 2 733 04 13
E-mail info@fil-idf.org
Web www.fil-idf.org

Published in Switzerland

Foreword

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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.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of document:

— an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;

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An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

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/TS 11869|IDF/RM 150 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 5, *Milk and milk products*, and the International Dairy Federation (IDF). It is being published jointly by ISO and IDF.

This first edition cancels and replaces ISO 11869:1997, which has been technically revised.

Foreword

IDF (the International Dairy Federation) is a non-profit organization representing the dairy sector worldwide. IDF membership comprises National Committees in every member country as well as regional dairy associations having signed a formal agreement on cooperation with IDF. All members of IDF have 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.

The main task of Standing Committees is to prepare International Standards. Draft International Standards adopted by the Standing Committees are circulated to the National Committees for endorsement prior to publication as an International Standard. Publication as an International Standard requires approval by at least 50 % of IDF National Committees casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, a Standing Committee may decide to publish an other type of normative document which is called by IDF: *Reviewed method*. Such a method represents an agreement between the members of a Standing Committee and is accepted for publication if it is approved by at least 50 % of each National Committee representative present casting a vote. A *Reviewed method* is equal to an ISO/PAS or ISO/TS and will, therefore, also be published jointly under ISO conditions.

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All work was carried out by the Joint ISO-IDF Project Group on *Titratable acidity* of the Standing Committee on *Analytical methods for composition* under the aegis of its project leader, Dr. J. Floor (ZA).

This edition of ISO/TS 11869|IDF/RM 150 cancels and replaces IDF 150:1991, of which it constitutes a technical revision.

Fermented milks — Determination of titratable acidity — Potentiometric method

1 Scope

This Technical Specification specifies a potentiometric method for the determination of the titratable acidity of natural yoghurt, flavoured yoghurt, fruit yoghurt, drinking yoghurt, fresh cheese with or without fruit, buttermilk with or without fruit, and other fermented milk products.

2 Terms and definitions

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

2.1
titratable acidity of fermented milks
amount in millilitres of a 0,1 mol/l sodium hydroxide solution required to titrate 10 g of product to pH 8,30 ± 0,01

NOTE The titratable acidity is expressed in millimoles per 100 g.

3 Principle

A test portion is suspended in water. The suspension is titrated potentiometrically against sodium hydroxide solution [c(NaOH) = 0,1 mol/l] to pH 8,30 ± 0,01. The titratable acidity is calculated.

4 Reagents

Use only reagents of recognized analytical grade, unless otherwise specified, and only distilled or deionized water, freed from carbon dioxide by boiling for 10 min before use.

4.1 Sodium hydroxide, standard volumetric solution, c(NaOH) = 0,1 mol/l ± 0,002 mol/l, carbonate free.

Protect this solution against absorption of carbon dioxide (CO_2) either by connecting a washing bottle with 10 % sodium hydroxide solution to the burette which itself contains the sodium hydroxide solution or by connecting a small tube with fresh sodium hydroxide or calcium oxide to the end of the burette to obtain a closed system.

NOTE CO_2 is either bound in the washing bottle or in the tube to protect the solution in the burette against absorption which would influence the concentration.