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Caseins and caseinates — Determination of pH (Reference method)

Caséines et caséinates — Détermination du pH (Méthode de référence)

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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.

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 5546|IDF 115 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 second edition of ISO 5546|IDF 115 cancels and replaces the first edition (ISO 5546:1979), of which it constitutes a minor revision.

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.

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ISO 5546|IDF 115 was prepared by the International Dairy Federation (IDF) and Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 5, *Milk and milk products*. It is being published jointly by IDF and ISO.

All work was carried out by the former Joint ISO-IDF Action Team on *Minor compounds*, now part of the Standing Committee on *Analytical methods for composition*.

This edition of ISO 5546|IDF 115 cancels and replaces IDF 115A:1989, of which it constitutes a minor revision.

Caseins and caseinates — Determination of pH (Reference method)

1 Scope

This International Standard specifies a reference method for the determination of the pH of all types of casein (acid caseins and rennet caseins) and of caseinates.

2 Terms and definitions

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

2.1
pH of caseins and caseinates
pH, at 20 °C, of an aqueous extract of casein or an aqueous solution of caseinate, as determined by the procedure specified in this International Standard

3 Principle

The pH of an aqueous extract of casein or an aqueous solution of caseinate is determined electrometrically using a pH meter.

4 Reagents

Unless otherwise stated, use only reagents of recognized analytical grade and recently distilled water that has been protected from carbon dioxide absorption.

4.1 Buffer solutions, for calibration of the pH meter (5.2).

Two standard buffer solutions with pH values at 20 °C, which are known to the second decimal place and which bracket the pH value of the sample under test, e.g. a phthalate buffer solution of approximately pH 4 and a borax buffer solution of approximately pH 9. In addition, a phosphate buffer solution of approximately pH 7 may be used.

5 Apparatus

Usual laboratory equipment and in particular the following.

5.1 Balance, accurate to the nearest 0,1 g.

5.2 pH meter, minimum sensitivity 0,05 pH unit, with a suitable glass electrode and a calomel or other reference electrode.

5.3 Thermometer, accurate to the nearest 0,5 °C.