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Caseins and caseinates — Determination of fat content — Gravimetric method (Reference method)

*Caséines et caséinates — Détermination de la teneur en matière
grasse — Méthode gravimétrique (Méthode de référence)*



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Contents

Page

Foreword.....	iv
Introduction	vi
1 Scope.....	1
2 Normative references	1
3 Terms and definitions.....	1
4 Principle	1
5 Reagents	1
6 Apparatus and materials	2
7 Sampling	3
8 Procedure.....	3
8.1 Preparation of test sample	4
8.2 Test portion	4
8.3 Blank test	4
8.4 Preparation of fat-collecting vessel	4
8.5 Determination	4
9 Calculation and expression of results	7
10 Precision	8
10.1 Interlaboratory test	8
10.2 Repeatability.....	8
10.3 Reproducibility	8
11 Notes on procedure	8
11.1 Blank test to check the reagents.....	8
11.2 Blank test carried out simultaneously with the determination	9
11.3 Test for peroxides in diethyl ether	9
11.4 Diethyl ether containing antioxidants.....	9
12 Test report.....	10
Annex A (informative) Alternative procedure using fat-extraction tubes with siphon or wash-bottle fittings	11
Bibliography	14

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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 5543|IDF 127 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 5, *Milk and milk products*, and the International Dairy Federation (IDF), in collaboration with AOAC International. It is being published jointly by ISO and IDF and separately by AOAC International.

This edition of ISO 5543|IDF 127 cancels and replaces ISO 5543:1986, of which it constitutes a minor revision. Only editorial changes have been made.

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Foreword

IDF (the International Dairy Federation) 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 and AOAC International in the development of standard methods of analysis and sampling for milk and milk products.

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

ISO 5543|IDF 127 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 5, *Milk and milk products*, and the International Dairy Federation (IDF), in collaboration with AOAC International. It is being published jointly by ISO and IDF and separately by AOAC International.

All work was carried out by the Joint ISO/IDF/AOAC Group of Experts, *Fat determination* (E31), under the aegis of its project leader, Mr J. Eisses (NL).

This edition of ISO 5543|IDF 127 cancels and replaces IDF 127A:1988. Only editorial changes have been made.

Introduction

This International Standard has been prepared within the framework of producing a series of methods, which are harmonized to the greatest possible extent, for the gravimetric determination of the fat content of milk, milk products and milk-based food.

A method based on the principle of Schmid-Bondzynski-Ratzlaff (SBR), involving digestion with hydrochloric acid, has been chosen for the following reasons:

- a) many caseins do not readily dissolve in ammonia, either because they contain or consist of hard lumps, or because they are not soluble, or are only poorly soluble (e.g. rennet casein), and therefore cannot be examined according to the method based on the Röse-Gottlieb (RG) principle as used for milk and most milk products;
- b) all caseins and caseinates, due to their low lactose content [less than 5 % (mass fraction) of dry matter], can be examined according to the SBR principle; this has the advantage over the Weibull method in that the method can be carried out using the same apparatus as that specified for the RG method and, at the same time, is less time consuming;
- c) methods based on the SBR principle have already found wide application in many countries as official or standardized methods for the examination of all caseins and caseinates.