
**Milk fat from enriched dairy products —
Determination of omega–3 and omega–6
fatty acid content by gas-liquid
chromatography**

*Matière grasse laitière de produits laitiers enrichis — Détermination de
la teneur en acides gras oméga–3 et oméga–6 par chromatographie
gaz-liquide*



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Contents

Page

Foreword.....	iv
Foreword.....	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle.....	2
5 Reagents.....	2
6 Apparatus	3
7 Sampling.....	5
8 Preparation of test sample.....	5
9 Procedure	5
9.1 Calibration solution for the determination of LA, EPA and DHA response factor.....	5
9.2 Test portion	5
9.3 Qualitative determination.....	5
9.4 Quantitative determination	6
9.5 Calculation and expression of results.....	6
9.6 Expression of results	7
10 Precision.....	7
10.1 Repeatability.....	7
10.2 Reproducibility.....	7
11 Test report	7
Annex A (informative) Examples of gas-liquid chromatographic analysis	8
Annex B (informative) Interlaboratory trial	11
Bibliography	12

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 23065|IDF 211 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 5, *Milk and milk products*. It is being published jointly by ISO and IDF.

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 at 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 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 IDF National Committees casting a vote.

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All work was carried out by the Joint ISO-IDF Action Team on *Fat*, of the Standing Committee on *Main components in milk*, under the aegis of its project leaders: Mrs. G. Contarini (IT).

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Milk fat from enriched dairy products — Determination of omega-3 and omega-6 fatty acid content by gas-liquid chromatography

1 Scope

This International Standard specifies a method for the determination of the omega-3 ($\omega-3$) and omega-6 ($\omega-6$) fatty acid content in anhydrous milk fat extracted from dairy products supplemented or naturally enriched with these constituents.

The specified procedure allows the evaluation of the most important $\omega-3$ and $\omega-6$ fatty acids.

NOTE The notations “omega-3”, “ $\omega-3$ ” and “ $\omega 3$ ” are erroneous, but in common use, they are equivalent to “ $\omega-3$ ”. The same is true for “omega-6”, “ $\omega-6$ ”, and “ $\omega 6$ ”, which are equivalent to “ $\omega-6$ ”.

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 referenced document (including any amendments) applies.

ISO 14156 | IDF 172, *Milk and milk products — Extraction methods for lipids and liposoluble compounds*

ISO 15884 | IDF 182, *Milk fat — Preparation of fatty acid methyl esters*

3 Terms and definitions

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

3.1

$\omega-3$ fatty acid

omega-3 fatty acid

omega-3 fatty acid (deprecated)

$\omega-3$ fatty acid (deprecated)

$\omega 3$ fatty acid (deprecated)

polyunsaturated fatty acid having the first double bond three carbons from the terminal methyl group

3.2

$\omega-6$ fatty acid

omega-6 fatty acid

omega-6 fatty acid (deprecated)

$\omega-6$ fatty acid (deprecated)

$\omega 6$ fatty acid (deprecated)

polyunsaturated fatty acid having the first double bond six carbons from the terminal methyl group