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First edition
2014-12-01

Animal and vegetable fats and oils — Gas chromatography of fatty acid methyl esters —

Part 1: Guidelines on modern gas chromatography of fatty acid methyl esters

Corps gras d'origines animale et végétale — Chromatographie en phase gazeuse des esters méthyliques d'acides gras —

Partie 1: Lignes directrices relatives à la chromatographie en phase gazeuse moderne des esters méthyliques d'acides gras



Reference number
ISO 12966-1:2014(E)

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Published in Switzerland

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Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Principle	1
4 Preparation of FAME	2
5 Columns	3
6 GLC of FAMES	4
7 Evaluation of the chromatograms	4
7.1 Peak area and area per cent.....	4
7.2 Evaluation by means of an internal standard or correction factors.....	4
8 Test report	5
Bibliography	6

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.

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 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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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 products*, Subcommittee SC 11, *Animal and vegetable fats and oils*.

This first edition of ISO 12966-1, together with ISO 12966-4, cancels and replaces ISO 5508:1990 and ISO 15304:2002 which have been technically revised.

ISO 12966 consists of the following parts, under the general title *Animal and vegetable fats and oils — Gas chromatography of fatty acid methyl esters*:

- *Part 1: Guidelines on modern gas chromatography of fatty acid methyl esters*
- *Part 2: Preparation of methyl esters of fatty acids*
- *Part 3: Preparation of methyl esters using trimethylsulfonium hydroxide (TMSH)*
- *Part 4: Capillary gas chromatographic method*

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Introduction

This part of ISO 12966 is one of a suite of four International Standards for the preparation and determination of fatty acid methyl esters by gas chromatography in animal and vegetable fats and oils. ISO 12966 (all parts) is applicable to crude, refined, partially hydrogenated or fully hydrogenated fats, oils and fatty acids derived from animal and vegetable sources.

ISO 12966 (all parts) is not suitable for the analysis of dairy, ruminant fats and oils (including milk and milk products or fat coming from milk and milk products), or products supplemented with conjugated linoleic acid (CLA). Furthermore it is not intended to be applied to polymerized and oxidized fats and oils.

This part of ISO 12966 is a guideline to the modern gas chromatography of fatty acid methyl esters, while ISO 12966-2 and ISO 12966-3 cover the preparation of fatty acid methyl esters by different methods. In ISO 12966-4, the conditions for the analysis of fatty acid methyl esters by capillary gas chromatography are given.

This suite of International Standards replaces the following International Standards:

- ISO 5508:1990 is replaced by ISO 12966-1 and ISO 12966-4
- ISO 15304:2002 is replaced by ISO 12966-1 and ISO 12966-4
- ISO 5509:2000 is replaced by ISO 12966-2 and ISO 12966-3