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Animal and vegetable fats and oils — Determination of benzo[*a*]pyrene — Reverse-phase high performance liquid chromatography method

Corps gras d'origines animale et végétale — Détermination du benzo[a]pyrène — Méthode par chromatographie liquide à haute performance à polarité de phase inversée

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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.

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).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 11, *Animal and vegetable fats and oils*.

This third edition cancels and replaces the second edition (ISO 15302:2007), of which it constitutes a minor revision. The scope of this document has been revised to exclude its application to milk and milk products and their derivatives.

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Animal and vegetable fats and oils — Determination of benzo[*a*]pyrene — Reverse-phase high performance liquid chromatography method

1 Scope

This document specifies a method for the determination of benzo[*a*]pyrene in crude or refined edible oils and fats by reverse-phase high performance liquid chromatography (HPLC) using fluorimetric detection in the range 0,1 µg/kg to 50 µg/kg.

Milk and milk products (or fat coming from milk and milk products) are excluded from the scope of this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 661, *Animal and vegetable fats and oils — Preparation of test sample*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

3.1
benzo[*a*]pyrene content
mass fraction of benzo[*a*]pyrene in the test portion, as determined using the method specified in this document

Note 1 to entry: The content is expressed in micrograms per kilogram.

4 Principle

A test portion is dissolved in light petroleum and benzo[*b*]chrysene is added as internal standard. A suitable amount of sample is adsorbed on an alumina column and eluted with light petroleum to remove any benzo[*a*]pyrene present.

5 Reagents

Use only reagents of recognized analytical grade, unless otherwise specified. Where analytical grade solvents other than the recommended ones are used, a full blank analysis shall be carried out and the results of this blank analysis reported.

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