Animal and vegetable fats and oils - Determination of stigmastadienes in vegetable oils - Part 2: Method using highperformance liquid chromatography (HPLC)

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 15788-2:2005 sisaldab Euroopa standardi EN ISO 15788-2:2004 ingliskeelset teksti. Käesolev dokument on jõustatud 25.01.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 15788-2:2005 consists of the English text of the European standard EN ISO 15788-2:2004. This document is endorsed on 25.01.2005 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This part of ISO 15788 specifies a method for the determination of steradienes, especially stigmastadienes. Steradienes are formed by dehydration of sterols during bleaching and also partially during steam washing and deodorization. The method is also suitable as a screening method to detect the presence of refined vegetable oils in virgin oils such as virgin olive oil.	**Scope:** This part of ISO 15788 specifies a method for the determination of steradienes, especially stigmastadienes. Steradienes are formed by dehydration of sterols during bleaching and also partially during steam washing and deodorization. The method is also suitable as a screening method to detect the presence of refined vegetable oils in virgin oils such as virgin olive oil.

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Animal and vegetable fats and oils - Determination of stigmastadienes in vegetable oils - Part 2: Method using high-performance liquid chromatography (HPLC) (ISO 15788-2:2003)

Corps gras d'origines animale et végétale - Dosage des stigmastadiènes dans les huiles végétales - Partie 2: Méthode par chromatographie liquide à haute performance (CLHP) (ISO 15788-2:2003)

Tierische und pflanzliche Fette und Öle - Bestimmung der Stigmastadiene in Pflanzenölen - Teil 2: Verfahren mit Hochleistungsflüssigchromatographie (HPLC) (ISO 15788-2:2003)

This European Standard was approved by CEN on 13 February 2003.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Ref. No. EN ISO 15788-2:2004: E

Foreword

The text of ISO 15788-2:2003 has been prepared by Technical Committee ISO/TC 34 "Agricultural food products" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 15788-2:2004 by Technical Committee CEN/TC 307 "Oilseeds, vegetable and animal fats and oils and their by-products - Methods of sampling and analysis", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2005, and conflicting national standards shall be withdrawn at the latest by May 2005.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Endorsement notice

The text of ISO 15788-2:2003 has been approved by CEN as EN ISO 15788-2:2004 without any modifications.

INTERNATIONAL STANDARD

ISO 15788-2

First edition
2003-02-15

Animal and vegetable fats and oils — Determination of stigmastadienes in vegetable oils —

Part 2: Method using high-performance liquid chromatography (HPLC)

Corps gras d'origines animale et végétale — Dosage des stigmastadiènes dans les huiles végétales —

Partie 2: Méthode par chromatographie liquide à haute performance (CLHP)

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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 15788-2 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 11, *Animal and vegetable fats and oils*.

ISO 15788 consists of the following parts, under the general title *Animal and vegetable fats and oils — Determination of stigmastadienes in vegetable oils*:

— *Part 1: Method using capillary-column gas chromatography (Reference method)*

— *Part 2: Method using high-performance liquid chromatography (HPLC)*

Animal and vegetable fats and oils — Determination of stigmastadienes in vegetable oils —

Part 2: Method using high-performance liquid chromatography (HPLC)

1 Scope

This part of ISO 15788 specifies a method for the determination of steradienes, especially stigmastadienes. Steradienes are formed by dehydration of sterols during bleaching and also partially during steam washing and deodorization. The method is also suitable as a screening method to detect the presence of refined vegetable oils in virgin oils such as virgin olive oil.

NOTE ISO 15788-1 is the reference method for the determination of stigmastadienes in vegetable oils whilst this part of ISO 15788 can be used as a rapid screening method. In view of the precision of this method (see Annex A), samples of virgin olive oils close to the limit adopted by international regulations (IOOC, EC) can be verified by the GLC method given in ISO 15788-1.

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 3696:1987, *Water for analytical use — Specification and test method*

ISO 12228, *Animal and vegetable fats and oils — Determination of individual and total sterols content — Gas chromatographic method*

3 Terms and definitions

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

3.1
stigmastadienes content
that part of the stigmastadienes separated by liquid chromatography under the conditions specified in this International Standard

NOTE It is expressed in milligrams per kilogram.

3.2
steradienes content
that part of all the steradienes separated by liquid chromatography under the conditions specified in this International Standard

NOTE It is expressed in milligrams per kilogram.