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EUROPEAN STANDARD

EN ISO 6886

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English Version

Animal and vegetable fats and oils - Determination of oxidative stability (accelerated oxidation test) (ISO 6886:2006)

Corps gras d'origines animale et végétale - Détermination de la stabilité à l'oxydation (essai d'oxydation accéléré) (ISO 6886:2006)

Tierische und pflanzliche Fette und Öle - Bestimmung der Oxidationsstabilität (beschleunigter Oxidationstest) (ISO 6886:2006)

This European Standard was approved by CEN on 23 October 2008.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

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Foreword

The text of ISO 6886:2006 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 6886:2008 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of an identical text or by endorsement, at the latest by May 2009, and conflicting national standards shall be withdrawn at the latest by May 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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

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The text of ISO 6886:2006 has been approved by CEN as a EN ISO 6886:2008 without any modification.

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INTERNATIONAL STANDARD

**ISO
6886**

Second edition
2006-09-01

Animal and vegetable fats and oils — Determination of oxidative stability (accelerated oxidation test)

*Corps gras d'origines animale et végétale — Détermination de la
stabilité à l'oxydation (essai d'oxydation accéléré)*

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ISO 6886:2006(E)

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 6886 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 11, *Animal and vegetable fats and oils*.

This second edition cancels and replaces the first edition (ISO 6886:1996), which has been technically revised.

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Animal and vegetable fats and oils — Determination of oxidative stability (accelerated oxidation test)

1 Scope

This International Standard specifies a method for the determination of the oxidative stability of fats and oils under extreme conditions that induce rapid oxidation: high temperature and high air flow. It does not allow determination of the stability of fats and oils at ambient temperatures, but it does allow a comparison of the efficacy of antioxidants added to fats and oils.

The method is applicable to both virgin and refined animal and vegetable fats and oils.

NOTE The presence of volatile fatty acids and volatile acidic oxidation products prevents accurate measurement.

2 Normative references

The following referenced document is 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 661:2003, *Animal and vegetable fats and oils — Preparation of test sample*
<https://standards.iteh.ai/catalog/standards/sist/18915919-6861-4511-acc2-ea41515f5c1e/sist-en-iso-6886-2009>

3 Terms and definitions

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

3.1

induction period

time between the start of the measurement and the time when the formation of oxidation products rapidly begins to increase

3.2

oxidative stability

induction period, expressed in hours, determined according to the procedure specified in this International Standard

NOTE A temperature of 100 °C to 120 °C is usually applied for the determination of oxidative stability. Depending on the oxidative stability of the sample under test, or when an extrapolation of regression is required, the determination may be carried out at other temperatures. The optimal induction period is between 6 h to 24 h. A temperature increase or decrease of 10 °C decreases or increases the induction period by a factor of approximately 2.

3.3

conductivity

ability of a material to conduct electric current