

SLOVENSKI STANDARD

SIST EN ISO 23275-2:2009

01-april-2009

Animal and vegetable fats and oils - Cocoa butter equivalents in cocoa butter and plain chocolate - Part 2: Quantification of cocoa butter equivalents (ISO 23275-2:2006)

Tierische und pflanzliche Fette und Öle - Kakaobutter-Äquivalente in Kakaobutter und Zartbitterschokolade - Teil 2: Quantifizierung von Kakaobutter-Äquivalenten (ISO 23275-2:2006)

Corps gras d'origines animale et végétale - Equivalents au beurre de cacao dans le beurre de cacao et dans le chocolat de ménage - Partie 2: Quantification des équivalents au beurre de cacao (ISO 23275-2:2006)

Ta slovenski standard je istoveten z: EN ISO 23275-2:2008

ICS:

67.190	[\ [ææ	Chocolate
67.200.10	Üæ dā • \ ^ Á Á ã æ \ ^ { æ [à ^ Á Á æ	Animal and vegetable fats and oils

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 23275-2

November 2008

ICS 67.200.10; 67.190

English Version

**Animal and vegetable fats and oils - Cocoa butter equivalents in
cocoa butter and plain chocolate - Part 2: Quantification of
cocoa butter equivalents (ISO 23275-2:2006)**

Corps gras d'origines animale et végétale - Équivalents au
beurre de cacao dans le beurre de cacao et dans le
chocolat de ménage - Partie 2: Quantification des
équivalents au beurre de cacao (ISO 23275-2:2006)

Tierische und pflanzliche Fette und Öle - Kakaobutter-
Äquivalente in Kakaobutter und Zartbitterschokolade - Teil
2: Mengenbestimmung von Kakaobutter-Äquivalenten (ISO
23275-2:2006)

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

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of 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 United Kingdom.



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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

The text of ISO 23275-2:2006 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 23275-2:2008 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 23275-2:2006 has been approved by CEN as a EN ISO 23275-2:2008 without any modification.

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INTERNATIONAL STANDARD

ISO
23275-2

First edition
2006-11-01

Animal and vegetable fats and oils — Cocoa butter equivalents in cocoa butter and plain chocolate —

Part 2: Quantification of cocoa butter equivalents

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(standards.iteh.ai)
*Corps gras d'origines animale et végétale — Équivalents au beurre
de cacao dans le beurre de cacao et dans le chocolat de ménage —*

Partie 2: Quantification des équivalents au beurre de cacao

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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 23275-2 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 11, *Animal and vegetable fats and oils*.

ISO 23275 consists of the following parts, under the general title *Animal and vegetable fats and oils — Cocoa butter equivalents in cocoa butter and plain chocolate*:

- *Part 1: Determination of the presence of cocoa butter equivalents*
- *Part 2: Quantification of cocoa butter equivalents*

Introduction

“Cocoa butter equivalents” is the general term for fats used to replace cocoa butter in chocolate. They resemble the chemical composition and physical properties of cocoa butter very closely, making them therefore extremely difficult to quantify and even in some cases to detect. In principle, cocoa butter equivalents must by definition be fats low in lauric acid, rich in symmetrical mono-unsaturated triacylglycerols of the type 1,3-dipalmitoyl-2-oleoylglycerol, 1-palmitoyl-2-oleoyl-3-stearoylglycerol and 1,3-distearoyl-2-oleoylglycerol, miscible with cocoa butter, and obtained only by refining and fractionation.

Within the European Union, the following vegetable fats, obtained from the plants listed below, may be used singly or in blends, according to Directive 2000/36/EC ^[1]:

- illipé, Borneo tallow or tengkawang (*Shorea* spp.),
- palm oil (*Elaeis guineensis*, *Elaeis olifera*),
- sal (*Shorea robusta*),
- shea (*Butyrospermum parkii*),
- kokum gurgi (*Garcinia indica*), and
- mango kernel (*Mangifera indica*).

ISO 23275-1 specifies a procedure for the detection of these fats (restrictions are only made for pure illipé fat samples) in cocoa butter and plain chocolate. This part of ISO 23275 specifies a procedure allowing a reliable quantification of these fats at the level of 5 %, complying with the statutory limit laid down in Directive 2000/36/EC ^[1] of the European Parliament and the Council.

To facilitate the usage of both parts of ISO 23275, an analytical toolbox named “CoCal-1” has been established. “CoCal-1” contains the validated methods for detection (part 1) and quantification (part 2) of CBEs in plain chocolate, and also a certified cocoa butter reference material (IRMM-801) to calibrate the analyst’s instruments and an electronic evaluation sheet for Microsoft Excel® to calculate the final result. An analyst working on CBE detection and quantification has only to calibrate the gas chromatographic separation system using IRMM-801, separate the triglyceride fractions of the sample in question, and use the electronic evaluation sheet for subsequent data treatment to detect and quantify CBEs.