

Foodstuffs - Determination of trace elements - Determination of lead, cadmium, zinc, copper and iron and chromium by atomic absorption spectrometry (AAS) after microwave digestion

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14084:2003 sisaldab Euroopa standardi EN 14084:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 16.05.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14084:2003 consists of the English text of the European standard EN 14084:2003.</p> <p>This document is endorsed on 16.05.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This European Standard specifies a method for the determination of lead, cadmium, zinc, copper and iron in foodstuffs by atomic absorption spectrometry (AAS) after microwave digestion</p>	<p>Scope: This European Standard specifies a method for the determination of lead, cadmium, zinc, copper and iron in foodstuffs by atomic absorption spectrometry (AAS) after microwave digestion</p>
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ICS 67.050

Võtmesõnad:

ICS 67.050

English version

Foodstuffs - Determination of trace elements - Determination of lead, cadmium, zinc, copper and iron by atomic absorption spectrometry (AAS) after microwave digestion

Produits alimentaires - Dosage des éléments traces - Dosage du plomb, du cadmium, du zinc, du cuivre et du fer par spectrométrie d'absorption atomique (AAS) après digestion par micro-ondes

Lebensmittel - Bestimmung von Elementspuren - Bestimmung von Blei, Cadmium, Zink, Kupfer und Eisen mit Atomabsorptionsspektrometrie (AAS) nach Mikrowellenaufschluss

This European Standard was approved by CEN on 18 December 2002.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 14084:2003) has been prepared by Technical Committee CEN/TC 275 "Food analysis - Horizontal methods", the secretariat of which is held by DIN.

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 October 2003, and conflicting national standards shall be withdrawn at the latest by October 2003.

Annex A is informative.

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

1 Scope

This European Standard specifies a method for the determination of lead, cadmium, zinc, copper and iron in foodstuffs by atomic absorption spectrometry (AAS) after microwave digestion.

The method is applicable to determination in various types of foodstuffs. The method is not applicable to oils, fats and other extremely fatty products.

The method has been successfully tested in an interlaboratory trial in which 16 laboratories participated [1]. Foodstuffs covered by the validation of the method include composite diets, cereals, fish, beef, milk and fungi.

Specific foodstuffs for which European Standards exist are excluded from the scope of this horizontal European Standard. It is the task of the analyst to review if vertical standards exist.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publications referred to applies (including amendments).

EN 13804, *Foodstuffs - Determination of trace elements - Performance criteria, general considerations and sample preparation*.

3 Principle

The samples are digested in closed vessels in a microwave oven in a mixture of nitric acid and hydrogen peroxide. The resulting solution is diluted with water, and the metal contents are determined by flame or graphite furnace atomic absorption spectrometry-procedures.

WARNING — The use of this standard can involve hazardous materials, operations and equipment. This standard does not purport to address all the safety problems associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.