This is a free page sample. Access the full version online.

National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 14546:2005

ICS 67.050

National Standards
Authority of Ireland
Glasnevin, Dublin 9
Ireland

Tel: +353 1 807 3800
Fax: +353 1 807 3838
http://www.nsai.ie

Sales
http://www.standards.ie

FOODSTUFFS - DETERMINATION OF TRACE ELEMENTS - DETERMINATION OF TOTAL ARSENIC BY HYDRIDE GENERATION ATOMIC ABSORPTION SPECTROMETRY (HGAAS) AFTER DRY ASHING

This Irish Standard was published under the authority of the National Standards Authority of Ireland and comes into effect on:
June 22, 2005

NO COPYING WITHOUT NSAI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

© NSAI 2005

Price Code F

Údarás um Chaighdeáin Náisiúnta na hÉireann

This is a free page sample. Access the full version online.

This is a free page sample. Access the full version online.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 14546

April 2005

ICS 67.050

English version

Foodstuffs - Determination of trace elements - Determination of total arsenic by hydride generation atomic absorption spectrometry (HGAAS) after dry ashing

Produits alimentaires - Détermination des éléments traces - Détermination de l'arsenic total par spectrométrie d'absorption atomique par génération d'hydrures (SAAGH) après calcination par voie sèche

Lebensmittel - Bestimmung von Elementspuren - Bestimmung von Gesamtarsen mit Atomabsorptionsspektrometrie-Hydridtechnik (HGAAS) nach Trockenveraschung

This European Standard was approved by CEN on 15 March 2005.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of 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.

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

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

© 2005 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN 14546:2005: E

This is a free page sample. Access the full version online.

Contents

page

Foreword **3**
1 Scope **4**
2 Normative references **4**
3 Principle **4**
4 Reagents **4**
5 Apparatus and equipment **6**
6 Procedure **6**
7 Calculation **8**
8 Precision **8**
9 Test report **9**
Annex A (informative) Results of the inter-laboratory test **10**
Bibliography **12**

This is a free page sample. Access the full version online.

Foreword

This document (EN 14546:2005) 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 2005, and conflicting national standards shall be withdrawn at the latest by October 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.

This is a free page sample. Access the full version online.

1 Scope

This European Standard specifies a method for the determination of total arsenic in foodstuffs by hydride generation atomic absorption spectrometry (HGAAS) after dry ashing.

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

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.

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

3 Principle

The samples treated with nitric acid and ashing aid are evaporated to dryness and then mineralized at 425 °C with a gradual increase in temperature. The ash is dissolved in hydrochloric acid and arsenic is quantified by HGAAS-procedure at the arsenic line at 193,7 nm [1].

WARNING — The use of this standard may 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 health and safety practices and determine the applicability of regulatory limitations prior to use.

4 Reagents

4.1 General

The concentration of arsenic in the reagents and water used shall be low enough not to affect results of the determination.

4.2 Hydrochloric acid

4.2.1 Hydrochloric acid, not less than 30 % of approximately ρ (HCl) = 1,15 g/ml.

4.2.2 Diluted hydrochloric acid, c (≈ 6 mol/l).

Dilute 500 ml hydrochloric acid (4.2.1) with water in a proportion of 1+1 parts by volume.

SAI GLOBAL

This is a free preview. Purchase the entire publication at the link below:

Product Page

Looking for additional Standards? Visit Intertek Inform Infostore

Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation