

Toiduained. Ochratooksiin A sisalduse määramine korintides, rosinates, seemneteta rosinates, kuivatatud puuviljade segudes ja kuivatatud viigimarjades vedelikkromatograafilisel meetodil fluorestsents detektoriga ja eelneva puhastamisega immunoaffiinsus kolonnis

Foodstuffs - Determination of ochratoxin A in currants, raisins, sultanas, mixed dried fruit and dried figs - HPLC method with immunoaffinity column cleanup and fluorescence detection

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English Version

Foodstuffs - Determination of ochratoxin A in currants, raisins, sultanas, mixed dried fruit and dried figs - HPLC method with immunoaffinity column cleanup and fluorescence detection

Produits alimentaires - Dosage de l'ochratoxine A dans les raisins de Corinthe, les raisins secs, les raisins secs de Smyrne, les mélanges de fruits secs et les figues sèches - Méthode CLHP avec purification sur colonne d'immunoaffinité et détection par fluorescence

Lebensmittel - Bestimmung von Ochratoxin A in Korinthen, Rosinen, Sultaninen, gemischtem Trockenobst und getrockneten Feigen - HPLC-Verfahren mit Reinigung an einer Immunoaffinitätssäule und Fluoreszenzdetektion

This European Standard was approved by CEN on 18 December 2009.

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Foreword

This document (EN 15829:2010) 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of an identical text or by endorsement, at the latest by August 2010, and conflicting national standards shall be withdrawn at the latest by August 2010.

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1 Scope

This European Standard specifies a method for the determination of ochratoxin A in currants, raisins, sultanas, mixed dried fruit and dried figs by high performance liquid chromatography (HPLC) with immunoaffinity cleanup and fluorescence detection. This method has been validated in an interlaboratory study via the analysis of both naturally contaminated and spiked samples ranging from 1,1 µg/kg to 11 µg/kg.

For further information on the validation, see Clause 9 and Annex B.

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.

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 ISO 3696:1995, *Water for analytical laboratory use — Specification and test methods (ISO 3696:1987)*

3 Principle

A test portion is extracted with a mixture of methanol and phosphoric acid. The extract is filtered, diluted with phosphate buffered saline, and applied to an immunoaffinity column containing antibodies specific for ochratoxin A. The ochratoxin A is isolated, purified and concentrated on the column then released with elution solvent. Ochratoxin A is quantified by reverse-phase high performance liquid chromatography (HPLC) with fluorescence detection.

4 Reagents

4.1 General

Use only reagents of recognized analytical grade and water complying with grade 1 of EN ISO 3696:1995, unless otherwise specified. Solvents shall be of quality for HPLC analysis. Commercially available solutions with equivalent properties to those listed may be used.

WARNING — Dispose of waste solvents according to applicable environmental rules and regulations. Decontamination procedures for laboratory wastes have been reported by the International Agency for Research on Cancer (IARC), see [1].

4.2 Helium purified compressed gas

4.3 Disodium hydrogen phosphate, anhydrous or $\text{Na}_2\text{HPO}_4 \cdot 12 \text{H}_2\text{O}$

4.4 Potassium chloride

4.5 Potassium dihydrogen phosphate

4.6 Sodium chloride