

Foodstuffs - Determination of vitamin D by high performance liquid chromatography - Measurement of cholecalciferol (D3) and ergocalciferol (D2)

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12821:2009 sisaldab Euroopa standardi EN 12821:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 29.05.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 01.04.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 12821:2009 consists of the English text of the European standard EN 12821:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 29.05.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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ICS 67.050

Võtmesõnad:

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EUROPEAN STANDARD

EN 12821

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

**Foodstuffs - Determination of vitamin D by high performance
liquid chromatography - Measurement of cholecalciferol (D3) or
ergocalciferol (D2)**

Produits alimentaires - Dosage de la vitamine D par
chromatographie liquide haute performance - Dosage du
cholécalfcérol (D3) et de l' ergocalciferol (D2)

Lebensmittel - Bestimmung von Vitamin D mit
Hochleistungs-Flüssigchromatographie - Bestimmung von
Cholecalciferol (D3) oder Ergocalciferol (D2)

This European Standard was approved by CEN on 21 February 2009.

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.

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Foreword

This document (EN 12821:2009) 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 2009, and conflicting national standards shall be withdrawn at the latest by October 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.

This document supersedes EN 12821:2000.

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1 Scope

This European Standard specifies a method for the determination of vitamin D₃ (cholecalciferol) or vitamin D₂ (ergocalciferol) in foodstuffs by high performance liquid chromatography (HPLC).

Vitamin D₃ is primary in foodstuffs of animal origin, while vitamin D₂ is primary in wild mushrooms. Both vitamin D₃ and vitamin D₂ can be present in fortified foodstuffs. This European Standard is not applicable for samples with a content of vitamin D₃ and vitamin D₂.

Apart from the vitamin D activity from the parent forms, vitamin D₃ and vitamin D₂, the corresponding metabolites 25-hydroxy vitamin D and 1,25-dihydroxy vitamin D also contribute to the vitamin D activity. This European Standard does only include measurement of vitamin D₃ or vitamin D₂.

This European Standard provides the base for the analytical methods. It is intended to serve as a frame in which the analyst can define his own analytical work in accordance to the standard procedure.

This method has been validated in inter-laboratory tests on fortified and non-fortified samples such as margarine, milk, milk powder, liquid infant formula, infant formula, cooking oil, and fish oil at levels from 0,4 µg/100 g to 14 µg/100 g. Further information on the validation data is given in Annex D.

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