

STN	Poživatiny Stanovenie množstva dusičnanov a dusitanov Časť 2: Stanovenie množstva dusičnanov v zelenine a zeleninových výrobkoch metódou HPLC/IC	STN EN 12014-2 56 0018
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Foodstuffs - Determination of nitrate and/or nitrite content - Part 2: HPLC/IC method for the determination of nitrate content of vegetables and vegetable products

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 05/18

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English Version

Foodstuffs - Determination of nitrate and/or nitrite content - Part 2: HPLC/IC method for the determination of nitrate content of vegetables and vegetable products

Produits alimentaires - Détermination de la teneur en nitrates et/ou en nitrites - Partie 2 : Méthode de détermination par CLHP/CI de la teneur en nitrates des légumes et des produits à base de légumes

Lebensmittel - Bestimmung des Nitrat- und/oder Nitritgehaltes - Teil 2: HPLC/IC-Verfahren für die Bestimmung des Nitratgehaltes in Gemüse und Gemüseerzeugnissen

This European Standard was approved by CEN on 15 October 2017.

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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-CENELEC Management Centre has the same status as the official versions.

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

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EN 12014-2:2017 (E)

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European foreword

This document (EN 12014-2:2017) 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of an identical text or by endorsement, at the latest by June 2018, and conflicting national standards shall be withdrawn at the latest by June 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12014-2:1997.

The following changes have been made to the former edition:

- a) the scope has been reduced from 50 mg/kg nitrate to 25 mg/kg nitrate and the upper limit has been deleted;
- b) the purification method 1 and 2 used in the preparation of sample test solutions has been deleted;
- c) a new matrix (iceberg lettuce) has been verified in an interlaboratory test;
- d) update of the HPLC/IC-conditions and chromatograms in Annex A;
- e) the procedure has been extensively revalidated and precision data in Annex B have been revised;
- f) editorially revised.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 12014-2:2017 (E)**Introduction**

The method described in this standard has been developed and validated for investigations regarding the European legislation for nitrate in vegetables and vegetable products. Laboratory experience has shown that this analytical method is also suitable for the determination of nitrite in other matrices; however, this has not been validated in the interlaboratory test scheme cited here.

1 Scope

This European Standard specifies a high-performance liquid chromatographic (HPLC) and an ion chromatographic (IC) method for determination of the nitrate level in vegetables and vegetable products. This method is applicable for samples with a content of 25 mg/kg or greater.

It has been validated on naturally contaminated and spiked samples as beetroot juice with nitrate mass fractions of 194 mg/kg and 691 mg/kg, pureed carrots with nitrate mass fractions of 26 mg/kg and 222 mg/kg and with iceberg lettuce with nitrate mass fractions of 623 mg/kg and 3 542 mg/kg.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

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