

Inorganic fertilizers - Determination of total nitrogen
in calcium cyanamide containing nitrates

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 15561:2023 sisaldab Euroopa standardi EN 15561:2023 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 23.08.2023.</p> <p>Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 15561:2023 consists of the English text of the European standard EN 15561:2023.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 23.08.2023.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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English Version

Inorganic fertilizers - Determination of total nitrogen in calcium cyanamide containing nitrates

Engrais inorganiques - Dosage de l'azote total dans la cyanamide calcique nitratée

Anorganische Düngemittel - Bestimmung des Gesamtstickstoffs in nitrathaltigem Kalkstickstoff

This European Standard was approved by CEN on 26 June 2023.

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

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European foreword

This document (EN 15561:2023) has been prepared by Technical Committee CEN/TC 260 “Fertilizers and liming materials”, 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of an identical text or by endorsement, at the latest by February 2024, and conflicting national standards shall be withdrawn at the latest by February 2024.

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 15561:2009.

In comparison with the previous edition EN 15561:2009, the following technical modifications have been made:

- technical change to the preparation of the solution, i.e. deletion of the last paragraph of 8.1;
- deletion of former tables and addition of a technically revised Table (8.2);
- deletion of distillation apparatus drawings;
- rewording the Expression of result (Clause 9).

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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1 Scope

This document specifies a method for the determination of total nitrogen in calcium cyanamide. The method is applicable to calcium cyanamide containing nitrates.

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.

EN 1482-2, *Fertilizers and liming materials — Sampling and sample preparation — Part 2: Sample preparation*

EN 12944-1, *Fertilizers and liming materials — Vocabulary — Part 1: General terms*

EN 12944-2, *Fertilizers and liming materials — Vocabulary — Part 2: Terms relating to fertilizers*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12944-1 and EN 12944-2 apply. ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

4 Principle

Reduction of nitrate nitrogen to ammonia with metallic iron and stannous chloride solution. Digestion in sulfuric acid. Distillation of the ammonia from an alkaline solution, absorption in an excess of sulfuric acid volumetric solution and back-titration with sodium or potassium hydroxide volumetric solution.

5 Reagents

Use only reagents of recognized analytical grade and water with an electrical conductivity < 0,5 mS/m (at 25 °C)

5.1 Sulfuric acid, mass concentration $\rho_{20} = 1,84$ g/ml

5.2 Powdered iron, reduced in hydrogen

5.3 Potassium sulphate, analytical grade

5.4 Sulfuric acid substance concentration $c = 0,05$ mol/l

5.5 Sodium or potassium hydroxide, substance concentration, $c = 0,1$ mol/l, carbonate free

5.6 Sulfuric acid, $c = 0,1$ mol/l

5.7 Sodium or potassium hydroxide, $c = 0,2$ mol/l, carbonate free

5.8 Sulfuric acid, $c = 0,25$ mol/l

5.9 Sodium or potassium hydroxide, $c = 0,5$ mol/l, carbonate free