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Fertilizers - Determination of different forms of nitrogen in the same sample, containing nitrogen as nitric, ammoniacal, urea and cyanamide nitrogen

EESTI STANDARDI EESSÕNA

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ICS 65.080

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EUROPEAN STANDARD

EN 15604

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes CEN/TS 15604:2007

English Version

Fertilizers - Determination of different forms of nitrogen in the same sample, containing nitrogen as nitric, ammoniacal, urea and cyanamide nitrogen

Engrais - Détermination des différentes formes d'azote dans un même échantillon contenant l'azote sous forme nitrique, ammoniacale, uréique et cyanamidique

Düngemittel - Bestimmung verschiedener, nebeneinander anwesender Stickstoff-Formen in derselben Probe mit Stickstoff in Form von Ammonium, Nitrat, Harnstoff und Cyanamid

This European Standard was approved by CEN on 6 December 2008.

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Foreword

This document (EN 15604:2009) 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of an identical text or by endorsement, at the latest by July 2009, and conflicting national standards shall be withdrawn at the latest by July 2009.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 CEN/TS 15604:2007.

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1 Scope

This European Standard specifies a method for the determination of any one form of nitrogen in the presence of any other form.

The method is applicable to any fertilizer provided for in Annex I of the Regulation (EC) No 2003/2003 [1] containing nitrogen in various forms.

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

EN 12944-1:1999, *Fertilizers and liming materials and soil improvers — Vocabulary — Part 1: General terms*

EN 12944-2:1999, *Fertilizers and liming materials and soil improvers — Vocabulary — Part 2: Terms relating to fertilizers*

EN 15475, *Fertilizers — Determination of ammoniacal nitrogen*

EN 15562, *Fertilizers — Determination of cyanamide nitrogen*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12944-1:1999 and EN 12944-2:1999 apply.

4 Principle

4.1 Total soluble and insoluble nitrogen

According to the list of standard fertilizers given in Annex I of [1], this determination is applicable to products containing calcium cyanamide.

In the absence of nitrates, the test sample is mineralized by direct Kjeldahl digestion.

In the presence of nitrates, the test sample is mineralized by Kjeldahl digestion after reduction with the aid of metallic iron and stannous chloride.

In both cases, the ammonia is determined according to EN 15475.

NOTE If analysis shows an insoluble nitrogen content of more than 0,5 %, one concludes that the fertilizer contains other forms of insoluble nitrogen not included in the list in [1], Annex I.