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I.S. EN 15478:2009

Fertilizers - Determination of total nitrogen in urea

I.S. EN 15478:2009

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English Version

Fertilizers - Determination of total nitrogen in urea

Engrais - Détermination de l'azote total dans l'urée

Düngemittel - Bestimmung von Gesamtstickstoff in
Harnstoff

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Foreword

This document (EN 15478:2009) 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of an identical text or by endorsement, at the latest by July 2009, and conflicting national standards shall be withdrawn at the latest by July 2009.

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1 Scope

This European Standard specifies a method for the determination of total nitrogen in urea. This method is applied exclusively to urea fertilizers which are nitrate free.

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 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

Urea is transformed quantitatively into ammonia by boiling in the presence of sulfuric acid. The ammonia thus obtained is distilled from an alkaline medium, the distillate being collected in an excess of standard sulfuric acid. The excess acid is titrated by means of a standard alkaline solution.

5 Reagents

5.1 General

Use only reagents of recognized analytical grade and distilled or demineralized water, free from carbon dioxide and all nitrogenous compounds (grade 3 according to EN ISO 3696:1995).

5.2 Kjeldahl tablets,

5 g/tablet containing 100 parts K_2SO_4 to 1 part selenium.

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