

**Väetised. Spektrofotomeetriline biureedi
määramine karbamiidis**

Fertilizers - Spectrophotometric determination of biuret
in urea

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15479:2009 sisaldab Euroopa standardi EN 15479:2009 ingliskeelset teksti.

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Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

English Version

Fertilizers - Spectrophotometric determination of biuret in urea

Engrais - Détermination photométrique du biuret dans
l'urée

Düngemittel - Spektrometrische Bestimmung von Biuret in
Harnstoff

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Page

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Principle	4
5 Reagents	4
6 Apparatus	5
7 Sampling and sample preparation	6
8 Procedure	6
9 Calculation and expression of the result	7
10 Precision	7
11 Test report	8
Annex A (informative) Results of the inter-laboratory tests	9
Bibliography	10

Foreword

This document (EN 15479:2009) 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of an identical text or by endorsement, at the latest by July 2009, and conflicting national standards shall be withdrawn at the latest by July 2009.

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This document supersedes CEN/TS 15479:2006.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

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1 Scope

This European Standard specifies a method for the determination of biuret in urea. The method is applicable to urea and urea-based fertilizers.

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

In an alkaline medium in the presence of potassium sodium tartrate, biuret and bivalent copper form a violet cupric compound. The absorbance of the solution is measured at a wavelength of about 546 nm.

5 Reagents

5.1 General

Use only reagents of recognized analytical grade and distilled or demineralized water, free from carbon dioxide and ammonia (grade 3 according to EN ISO 3696:1995). The quality of the water is particularly important in this determination.

5.2 Methanol

5.3 Sulfuric acid solution, c = approximately 0,05 mol/l.

5.4 Sodium hydroxide solution, c = approximately 0,1 mol/l.

5.5 Alkaline solution of potassium sodium tartrate

In a graduated one-litre flask, dissolve 40 g of sodium hydroxide in 500 ml of water and leave to cool. Add 50 g of potassium sodium tartrate ($\text{NaKC}_4\text{H}_4\text{O}_6 \cdot 4\text{H}_2\text{O}$). Make up to the mark and leave standing for 24 h before use.