Fertilizers - Determination of urease inhibitor N-(n-butyl)thiophosphoric triamide (NBPT) using high-performance liquid chromatography (HPLC)

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15688:2008 sisaldab Euroopa standardi EN 15688:2008 ingliskeelset teksti.	This Estonian standard EVS-EN 15688:2008 consists of the English text of the European standard EN 15688:2008.
Standard on kinnitatud Eesti Standardikeskuse 25.09.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 25.09.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 06.08.2008.	Date of Availability of the European standard text 06.08.2008.
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Fertilizers - Determination of urease inhibitor N-(n-butyl)thiophosphoric triamide (NBPT) using high-performance liquid chromatography (HPLC)

Engrais - Détermination de l'inhibiteur d'uréase N-(n-butyl) triamine thiophosphorique (NBPT) par chromatographie liquide haute performance (HPLC)

Düngemittel - Bestimmung von Urease-Hemmstoff N-(n-Butyl)-thiophosphortriamid (NBPT) mit Hochleistungs-Flüssigchromatographie (HPLC)

This European Standard was approved by CEN on 4 July 2008.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Contents

Page

Foreword

This document (EN 15688:2008) 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of an identical text or by endorsement, at the latest by February 2009, and conflicting national standards shall be withdrawn at the latest by February 2009.

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1 Scope

This document specifies a method for the quantitative determination of the urease inhibitor N-(*n*-butyl)thiophosphoric triamide (NBPT) content in water-soluble matrices, i.e. urea based fertilizers using high performance liquid chromatography (HPLC).

NOTE Pure NBPT reference material is required as a standard for the quantitative calibration.

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, *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

This analytical method is based on the principles of liquid chromatography, with absorption in the ultraviolet region for detection of the separated compounds.

5 Reagents

5.1 General

Use only reagents of recognized analytical grade and distilled or demineralized water (grade 3 according to EN ISO 3696).

5.2 Reagents for liquid chromatography

5.2.1 Acetonitrile, HPLC-grade or spectroscopic grade.

5.2.2 Water, Milli-Q purified or equivalent quality.