

Väetised. 3-metüülpürasooli (MP) määramine, kasutades kõrgefektiivset vedelikkromatograafiat (HPLC)

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NATIONAL FOREWORD

<div>E E</div> <div>EVS-EN 15905:2010 EN 15905:2010</div> <div>S 1 0 2010</div> <div>EVS</div> <div>E 02 0 2010</div> <div>S</div>	<div>E E EN 15905:2010</div> <div>EVS-EN 15905:2010 E</div> <div>E 1 0 2010</div> <div>S</div> <div>E 02 0 2010</div> <div>E</div>
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English Version

Fertilizers - Determination of 3-methylpyrazole (MP) using high-performance liquid chromatography (HPLC)

Engrais - Dosage du 3-méthylpyrazole (MP) par chromatographie liquide à haute performance (HPLC)

Düngemittel - Bestimmung von 3-Methylpyrazol (MP) mit Hochleistungs-Flüssigchromatographie (HPLC)

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Foreword

This document (EN 15905:2010) 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of an identical text or by endorsement, at the latest by December 2010, and conflicting national standards shall be withdrawn at the latest by December 2010.

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1 Scope

This European Standard specifies a method for the determination of the 3-methylpyrazole (MP) content in fertilizers, in particular in urea and materials containing urea using high-performance liquid chromatography (HPLC).

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*¹⁾ (including corrigendum AC:2000)

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

The sample of fertilizer is dissolved in water or extracted with water. The 3-methylpyrazole is determined in the solution using reversed phase high-performance liquid chromatography with an UV detector.

5 Reagents

Use only reagents of recognized analytical grade and distilled or demineralized water (grade 3 according to EN ISO 3696:1995).

5.1 Acetonitrile, HPLC purity.

5.2 De-ionized water, conductivity less than 0,5 mS/m according to ISO 3696, grade 3.

5.3 3-methylpyrazole.

6 Apparatus

6.1 Analytical balance, measuring accuracy 0,1 mg or better.

¹⁾ See corrigendum EN 12944-2:1999/AC:2000 which corrects EN 12944-2:1999.