

**Väetised. 3,4-dimetüül-1H-püraoolfosfaat (DMPP).
Määramismeetod kõrglahu-tusvõimega
vedelikkromatograafia (HPLC)**

**Fertilizers - Determination of 3,4-dimethyl-1H-pyrazole
phosphate (DMPP) - Method using high-performance
liquid chromatography (HPLC)**

EESTI STANDARDI EESSÕNA

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English Version

Fertilizers - Determination of 3,4-dimethyl-1H-pyrazole phosphate (DMPP) - Method using high-performance liquid chromatography (HPLC)

Engrais - Dosage du 3,4-diméthyl-1H-pyrazole phosphate (DMPP) - Méthode par chromatographie liquide à haute performance (HPLC)

Düngemittel - Bestimmung von 3,4-Dimethyl-1H-pyrazolphosphat (DMPP) - Verfahren mit Hochleistungs-Flüssigchromatographie (HPLC)

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

Management Centre: Avenue Marnix 17, B-1000 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	4
7 Sampling.....	5
8 Procedure	5
8.1 Preparation of the test solution.....	5
8.2 Preparation of calibration solution	5
8.3 HPLC conditions	5
8.4 HPLC determination	6
9 Calculation and expression of the results	6
10 Precision.....	6
10.1 Inter-laboratory test.....	6
10.2 Repeatability.....	6
10.3 Reproducibility.....	6
11 Test report	7
Annex A (informative) Results of the inter-laboratory test	8
A.1 Inter-laboratory tests	8
A.2 Statistical results	8
Bibliography	9

Foreword

This document (EN 16328:2012) 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of an identical text or by endorsement, at the latest by June 2013, and conflicting national standards shall be withdrawn at the latest by June 2013.

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1 Scope

This European Standard specifies a method for the determination of 3,4-dimethyl-1H-pyrazole phosphate (DMPP, CAS-No: 202842-98-6) in mineral N containing fertilizers using high-performance liquid chromatography (HPLC).

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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*

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 fertilizer sample is dissolved in or extracted with water. The concentration of 3,4-dimethyl-1H-pyrazole phosphate is determined in diluted aqueous solution by high performance liquid chromatography (HPLC) at a reversed phase using a UV detector.

5 Reagents

WARNING — The described method includes the handling with hazardous materials. Attention must be paid to technical, organizational and personal safety measures.

Use only reagents of recognized analytical grade.

5.1 **Water**, de-ionized.

5.2 **Acetonitrile**, HPLC grade.

5.3 **Sodiumdihydrogenphosphate-monohydrate**, $\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$.

5.4 **3,4-dimethyl-1H-pyrazole**, > 99 % purity.

6 Apparatus

6.1 **Ultrasonic bath and magnetic stirrer**, respectively.