SLOVENSKI STANDARD
kSIST FprEN 15959:2023

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Anorganska gnojila - Določevanje ekstrahiranega fosforja P2O5

Inorganic fertilizers - Determination of extracted phosphorus P2O5

Anorganische Düngemittel - Bestimmung des Gehalts an extrahiertem Phosphor P2O5

Engrais inorganiques - Dosage du phosphore extrait P2O5

Ta slovenski standard je istoveten z: **FprEN 15959**

ICS:

65.080 Gnojila Fertilizers

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EUROPEAN STANDARD

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FINAL DRAFT
FprEN 15959

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ICS 65.080

Will supersede EN 15959:2011

English Version

Inorganic fertilizers - Determination of extracted phosphorus P_2O_5

Engrais inorganiques - Dosage du phosphore extrait P_2O_5

Anorganische Düngemittel - Bestimmung des Gehalts an extrahiertem Phosphor P_2O_5

This draft European Standard is submitted to CEN members for formal vote. It has been drawn up by the Technical Committee CEN/TC 260.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (FprEN 15959:2023) has been prepared by Technical Committee CEN/TC 260 “Fertilizers and liming materials”, the secretariat of which is held by DIN.

This document is currently submitted to the Formal Vote.

This document will supersede EN 15959:2011.

In comparison with the previous edition EN 15959:2011, the following technical modifications have been made:

— precision data for the determination of the formic acid soluble P_2O_5 content have been added to Table 2 and Annex A.

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

1 Scope

This document specifies a method for the determination of phosphorus in fertilizer extracts.

The method is applicable to all extracts of fertilizers for the determination of the different forms of phosphorus as phosphorus soluble in mineral acids, water-soluble phosphorus, phosphorus soluble in solutions of neutral ammonium citrate, phosphorus soluble in 2 % citric acid and phosphorus soluble in a mass fraction of 2 % formic acid.

The method has only been validated on inorganic fertilizers but can be applicable to all extracted phosphorous if proper extraction methods are used.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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, *Fertilizers and liming materials and soil improvers — Vocabulary — Part 1: General terms*

EN 12944-2, *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 and EN 12944-2 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at https://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

4 Principle

After possible hydrolysis, phosphorus is precipitated in an acid media in the form of quinoline phosphomolybdate.

After filtering and washing, the precipitate is dried at 250 °C and weighed.

In the above-mentioned conditions no interfering action is exerted by the compounds likely to be found in the solution (mineral and organic acids, ammonium ions, soluble silicates, etc.) if a reagent based on sodium molybdate or ammonium molybdate is used in the precipitation.

5 Reagents

Use only reagents of recognized analytical grade.

5.1 Water, distilled or demineralized.

5.2 Concentrated nitric acid, mass concentration ρ = 1,40 g/ml.