
**Fertilizers — Determination of
extracted phosphorus**

Engrais — Dosage du phosphore extrait

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Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	1
5 Sampling and sample preparation	1
6 Reagents	1
7 Apparatus	2
8 Procedure	3
8.1 Treatment of the solution.....	3
8.2 Hydrolysis.....	3
8.3 Weighing the crucible.....	3
8.4 Precipitation.....	3
8.5 Filtering and washing.....	3
8.6 Drying and weighing.....	4
8.7 Blank test.....	4
8.8 Verification.....	4
9 Calculation and expression of the result	4
10 Precision	5
10.1 Interlaboratory tests.....	5
10.2 Repeatability.....	5
10.3 Reproducibility.....	5
11 Test report	6
Annex A (informative) Statistical results of the interlaboratory test	7
Bibliography	9

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

ISO 15959 was prepared by CEN/TC 260 as CEN/TS 15959:2009 and was adopted (without modification other than that stipulated below) by Technical Committee ISO/TC 134, *Fertilizers and soil conditioners*.

The following changes have been made:

- potassium dihydrogen phosphate has been added to the reagents ([Clause 6](#));
- CEN/TS 15956, CEN/TS 15957 and CEN/TS 15958 have been updated to EN standards;
- other editorial changes.

Fertilizers — Determination of extracted phosphorus

1 Scope

This International Standard 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 ammonium citrate, phosphorus soluble in 2 % citric acid and phosphorus soluble in 2 % formic acid.

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.

ISO 14820-2, *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.

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 Sampling and sample preparation

Sampling is not part of the method specified in this International Standard. A recommended sampling method is given in ISO 14820-1.

Sample preparation shall be carried out in accordance with ISO 14820-2. Grinding of the laboratory sample is recommended for homogeneity reasons.

6 Reagents

6.1 Water, distilled or demineralized.