SLOVENSKI STANDARD
kSIST-TS FprCEN/TS 15956:2009

01-julij-2009

Gnojila - Ekstrakcija fosforja, topnega v mineralnih kislinah (metoda 3.1.1)

Fertilizers - Extraction of phosphorus soluble in mineral acids (Method 3.1.1)

Düngemittel - Extraktion des in Mineralsäuren löslichen Phosphors

Engrais - Extraction du phosphore soluble dans les acides minéraux

Ta slovenski standard je istoveten z: **FprCEN/TS 15956**

ICS:

65.080	Gnojila	Fertilizers

kSIST-TS FprCEN/TS 15956:2009 **en,fr,de**

TECHNICAL SPECIFICATION

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

FINAL DRAFT FprCEN/TS 15956

June 2009

ICS 65.080

English Version

Fertilizers - Extraction of phosphorus soluble in mineral acids (Method 3.1.1)

Engrais - Extraction du phosphore soluble dans les acides minéraux

Düngemittel - Extraktion des in Mineralsäuren löslichen Phosphors

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

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Warning : This document is not a Technical Specification. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a Technical Specification.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. FprCEN/TS 15956:2009: E

Contents

Page

Foreword

This document (FprCEN/TS 15956:2009) 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 has been prepared under a mandate 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 soluble in mineral acids.

The method is applicable exclusively to phosphate fertilizers listed in Regulation (EC) 2003/2003, Annex I (see [1]).

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*

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

Extraction of the phosphorus in the fertilizer with a mixture of nitric acid and sulfuric acid under the specified conditions.

5 Sampling

Sampling is not part of the method specified in this document. A recommended sampling method is given in EN 1482-1.

Sample preparation shall be carried out in accordance with EN 1482-2. Grinding of the laboratory sample is recommended for homogeneity reasons.

6 Reagents

6.1 Water, distilled or demineralized.

6.2 Sulfuric acid, ρ = 1,84 g/ml.

6.3 Nitric acid, ρ = 1,40 g/ml.

7 Apparatus

7.1 Standard laboratory equipment.

7.2 Kjeldahl flask, capacity at least 500 ml, or 250 ml round-bottomed flask with a glass tube forming a reflux condenser.

7.3 500 ml graduated flask.

7.4 Dry pleated filter, phosphate free.

8 Procedure

8.1 Test portion

Weigh, to the nearest 0,001 g, 2,5 g of the laboratory sample and place it in a dry Kjeldahl flask.

8.2 Extraction

Add 15 ml of water to the test portion and stir so as to suspend the substance. Add 20 ml of nitric acid (6.3) and carefully add 30 ml of sulfuric acid (6.2).

When the initial violent reaction has ceased, slowly bring the contents of the flask to boiling and boil for 30 min. Allow to cool and then carefully add with mixing about 150 ml of water (6.1). Continue boiling for 15 min.

Cool completely and transfer the liquid quantitatively to a graduated flask (7.3). Make up to volume, mix and filter through a dry pleated filter (7.4), discarding the first portion of the filtrate.

9 Test report

The test report shall contain at least the following information:

a) all information necessary for the complete identification of the sample;

b) the test method used with reference to this document;

c) the test results obtained;

d) date of sampling and sampling procedure (if known);

e) date when the analysis was finished;

f) whether the requirement of the repeatability limit has been fulfilled;

g) all operating details not specified in this document, or regarded as optional, together with details of any incidents occurred when performing the method, which might have influenced the test result(s).

Bibliography

[1] Regulation (EC) No 2003/2003 of the European Parliament and of the Council of 13 October 2003 relating to fertilisers, Official Journal L 304, 21/11/2003, P. 0001-0194, Annex I and Annex IV, method 3.1.1

[2] EN 1482-1, *Fertilizers and liming materials — Sampling and sample preparation — Part 1: Sampling*