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ERALDAMINE

Fertilizers - Extraction of total calcium, total  
magnesium, total sodium and total sulfur in the forms of  
sulfates

## EESTI STANDARDI EESSÕNA

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English Version

## Fertilizers - Extraction of total calcium, total magnesium, total sodium and total sulfur in the forms of sulfates

Engrais - Extraction du calcium total, du magnésium total, du sodium total et du soufre total présent sous forme de sulfate

Düngemittel - Extraktion von Gesamtcalcium, Gesamtmagnesium und Gesamtnatrium sowie von Gesamtschwefel in Form von Sulfat

This European Standard was approved by CEN on 15 October 2011.

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This European Standard exists 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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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

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## Foreword

This document (EN 15960:2011) 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of an identical text or by endorsement, at the latest by May 2012, and conflicting national standards shall be withdrawn at the latest by May 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes CEN/TS 15960:2009.

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

The following has been added to the former edition of the European Standard:

- a) the CEN Technical Specification has been adopted as a European Standard;
- b) editorial revision.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, 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 the United Kingdom.

## 1 Scope

This European Standard specifies a method for the extraction of total calcium, total magnesium and total sodium and for the extraction of total sulfur present in the form of sulfates, so that the same extract may be used for the determination of each nutrient required.

The method is applicable to fertilizers listed in Regulation (EC) 2003/2003, Annex I [2], for which a declaration of total calcium, total magnesium, total sodium, and total sulfur in the form of sulfates is provided for in this Regulation.

## 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 magnesium, sodium and sulfur present in the form of sulfates in the fertilizer by boiling in diluted hydrochloric 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 Diluted hydrochloric acid**, mix one volume of hydrochloric acid,  $\rho = 1,18$  g/ml, with one volume of water.