

**Väetised. Magneesiumi määramine aatomabsorptsioon-  
spektromeetriselt**

Fertilizers - Determination of magnesium by atomic  
absorption spectrometry

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 16197:2012 sisaldab Euroopa standardi EN 16197:2012 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.11.2012 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

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Standard on kättesaadav Eesti standardiorganisatsioonist.

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This standard is ratified with the order of Estonian Centre for Standardisation dated 30.11.2012 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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ICS 65.080

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English Version

## Fertilizers - Determination of magnesium by atomic absorption spectrometry

Engrais - Dosage du magnésium par spectrométrie  
d'absorption atomiqueDüngemittel - Bestimmung von Magnesium mit  
Atomabsorptionsspektrometrie

This European Standard was approved by CEN on 6 October 2012.

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## Foreword

This document (EN 16197:2012) 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of an identical text or by endorsement, at the latest by May 2013, and conflicting national standards shall be withdrawn at the latest by May 2013.

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 16197:2011.

The following changes have been made to the former edition:

- a) the CEN Technical Specification has been adopted as a European Standard;
- b) the document has been editorially revised.

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

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This European Standard specifies a method for the determination of the magnesium content in fertilizer extracts using atomic absorption spectrometry (AAS).

This method is applicable to EC fertilizer extracts obtained according to EN 15960 and EN 15961, for which a declaration of the total magnesium and/or water soluble magnesium content is required, with the exceptions of the following fertilizers according to [4], Annex I D relating to secondary nutrients:

- type 4 (kieserite);
- type 5 (magnesium sulfate) and type 5.1 (magnesium sulfate solution);

and with the exception of the following fertilizer listed in [4], Annex I A.3 relating to potassic fertilizers:

- type 7 (kieserite with potassium sulfate)

to which [4], method 8.8, applies.

NOTE Method 8.8 is covered by EN 16198 [2].

The method applies to all fertilizer extracts containing elements in quantities that might interfere with the complexometric determination of magnesium.

## 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*

EN 15960, *Fertilizers — Extraction of total calcium, total magnesium, total sodium and total sulfur in the forms of sulfates*

EN 15961, *Fertilizers — Extraction of water soluble calcium, magnesium, sodium and sulfur in the form of sulfates*

## 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

Determination of magnesium by atomic absorption spectrometry (AAS) after appropriate dilution of the extract.