

**Väetised. Magneesiumi kompleksomeetiline määramine**  
Fertilizers - Determination of magnesium by complexometry

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 16198:2012 sisaldab Euroopa standardi EN 16198:2012 ingliskeelset teksti.

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

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 14.11.2012.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 16198:2012 consists of the English text of the European standard EN 16198:2012.

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.

Date of Availability of the European standard text 14.11.2012.

The standard is available from Estonian standardisation organisation.

ICS 65.080

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English Version

**Fertilizers - Determination of magnesium by complexometry**

Engrais - Dosage du magnésium par complexométrie

Düngemittel - Komplexometrische Bestimmung von  
Magnesium

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

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## Foreword

This document (EN 16198:2012) 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of an identical text or by endorsement, at the latest by May 2013, and conflicting national standards shall be withdrawn at the latest by May 2013.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 16198:2011.

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 magnesium in fertilizer extracts by complexometry.

The method is applicable to the following EC fertilizer extracts for which the determination of total magnesium and/or water-soluble magnesium is provided for according to the Regulation (EC) No 2003/2003, Annex I [3]:

- fertilizers listed in [3], Annex I: straight nitrogenous fertilizers, type 1b + 1c (calcium magnesium nitrate), type 7 (magnesium sulfonitrate), type 8 (nitrogenous fertilizers with magnesium) and straight potassic fertilizers, type 2 (enriched kainite), type 4 (potassium chloride containing magnesium), type 6 (potassium sulfate containing magnesium salt);
- fertilizers listed in [3], Annex I D relating to secondary nutrients.

## 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

The magnesium is solubilised according to EN 15960 or EN 15961. First titration: with EDTA of Ca and Mg in the presence of Eriochrome black-T. Second titration: with EDTA of Ca in the presence of calcein or of calcione carbonic acid. Determination of magnesium by difference.

## 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.