

ICS 65.080

English Version

**Fertilizers - Determination of magnesium by atomic absorption spectrometry**

Engrais - Dosage du magnésium par spectrométrie d'absorption atomique

Düngemittel - Bestimmung von Magnesium mit Atomabsorptionsspektrometrie

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## Foreword

This document (CEN/TS 16197:2011) has been prepared by Technical Committee CEN/TC 260 "Fertilizers and liming materials", the secretariat of which is held by DIN.

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## **1 Scope**

This Technical Specification 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 CEN/TS 15960 and CEN/TS 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);
- type 7 (kieserite with potassium sulfate)

to which [4], method 8.8, applies.

NOTE Method 8.8 is covered by CEN/TS 16198 (see Bibliography).

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 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*

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

CEN/TS 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.