Väetised. Vees lahustuva kaltsiumi, magneesiumi, naatriumi ja väävli ekstraheerimine sulfaadi vormides

Fertilizers - Extraction of water-soluble calcium, and and some and a some and a some a magnesium, sodium and sulfur in the form of sulfates



# **EESTI STANDARDI EESSÕNA**

### **NATIONAL FOREWORD**

	This Estonian standard EVS-EN 15961:2011 consists
Euroopa standardi EN 15961:2011 ingliskeelset	of the English text of the European standard EN
teksti.	15961:2011.
, , , , , , , , , , , , , , , , , , , ,	This standard has been endorsed with a notification
avaldamisega EVS Teatajas.	published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud	Date of Availability of the European standard is
	23.11.2011.
kättesaadavaks 23.11.2011.	
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for
	Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile <a href="mailto:standardiosakond@evs.ee">standardiosakond@evs.ee</a>.

ICS 65.080

# Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega: Aru 10, 10317 Tallinn, Eesti; <a href="www.evs.ee">www.evs.ee</a>; telefon 605 5050; e-post <a href="mailto:info@evs.ee">info@evs.ee</a>

#### The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation: Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

# EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

EN 15961

November 2011

ICS 65.080

Supersedes CEN/TS 15961:2009

#### **English Version**

# Fertilizers - Extraction of water-soluble calcium, magnesium, sodium and sulfur in the form of sulfates

Engrais - Extraction des formes solubles dans l'eau du calcium, du magnésium, du sodium et du soufre sous forme de sulfate

Düngemittel - Extraktion von wasserlöslichem Calcium, Magnesium und Natrium sowie von Schwefel in Form von Sulfat

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

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of 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 United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword	onی	tents	Page
Scope			
Normative references Terms and definitions Principle Sampling Reagents Apparatus Procedure 1 Test portion Test report ibliography	orev		
Terms and definitions Principle Sampling Reagents Apparatus Procedure 1 Test portion 2 Preparation of the solution Test report			
Principle Sampling Reagents Apparatus Procedure 1 Test portion 2 Preparation of the solution Test report bliography			
Sampling			
Reagents		•	
Apparatus			
Procedure		_	
1 Test portion			
Test report		Test portion	5
bliography			
	blic		6
			CHOM ORNOR DE LOS

# **Foreword**

This document (EN 15961:2011) 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 15961:2009.

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 water-soluble calcium, magnesium, sodium and sulfur (in the form of sulfates), so that the same extract may be used for the determination of each nutrient required.

The method is solely applicable to fertilizers listed in Regulation (EC) 2003/2003, Annex I (see [2]), for which a declaration of the water-soluble calcium, magnesium, sodium, and 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 calcium, magnesium, sodium, and sulfur (present in the form of sulfates) in the fertilizer by boiling in water 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.