

ICS 65.080

English Version

**Fertilizers - Determination of the water-soluble potassium
content**

Engrais - Détermination de la teneur en potassium soluble
dans l'eau

Düngemittel - Bestimmung von wasserlöslichem Kalium

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Foreword

This document (CEN/TS 15477:2006) has been prepared by Technical Committee CEN/TC 260 "Fertilizers and liming materials", the secretariat of which is held by DIN.

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 organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, 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 Technical Specification specifies a method for the determination of water-soluble potassium, which is applicable to all potassium fertilizers listed in Annex I of the Regulation (EC) No 2003/2003 [1].

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.

prEN 1482-2, *Fertilizers and liming materials — Sampling and sample preparation — Part 2: Sample preparation*

EN 12944-1:1999, *Fertilizers and liming materials — Vocabulary — Part 1: General terms*

EN 12944-2:1999, *Fertilizers and liming materials — Vocabulary — Part 2: Terms relating to fertilizers (including corrigendum AC:2000)*

EN ISO 3696:1995, *Water for analytical laboratory use — Specification and test methods (ISO 3696:1987)*

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 potassium in the sample to be analyzed is dissolved in water. After eliminating or fixing the substances that might interfere with the quantitative determination, the potassium is precipitated in a slightly alkaline medium in the form of potassium tetraphenylborate.

5 Reagents

5.1 General

Use only reagents of recognized analytical grade and distilled or demineralized water (grade 3 according to EN ISO 3696:1995).

5.2 Formaldehyde

clear formaldehyde solution with a mass fraction of 25 % to 35 % formaldehyde

5.3 Potassium chloride

p. a.

5.4 Sodium hydroxide solution

$c = 10 \text{ mol/l}$

Care should be taken to ensure that only potassium free sodium hydroxide is used.