TECHNICAL SPECIFICATION

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CEN/TS 17751

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English Version

Inorganic fertilizers - Determination of specific parameters in ammonium nitrate fertilizers of high nitrogen content

Engrais inorganiques - Détermination des paramètres spécifiques des engrais à base de nitrate d'ammonium à forte teneur en azote

Anorganische Düngemittel - Bestimmung spezifischer Parameter bei Ammoniumnitratdüngemitteln mit hohem Stickstoffgehalt

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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European foreword

This document (CEN/TS 17751:2022) 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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Introduction

Regulation (EU) 2019/1009 [1] lays down the rules on the making available on the market of EU fertilizing products and the specific safety and quality requirements for the defined product function categories (PFCs). Straight or compound solid inorganic macronutrient ammonium nitrate fertilizers of high nitrogen content have been classified into PFC 1(C)(I)(a)(i-ii)(A).

The specific safety and quality requirements in relation to the following specific parameters in these EU fertilizing products are defined in this document as well as normative references of the test methods to be used in order to measure the compliance with the related requirement in the Regulation (EU) 2019/1009 [1].

WARNING — The use of this document can involve hazardous materials, operations and equipment. This document does not purport to address all the safety problems associated with its use. It is the responsibility of the user of this document to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

1 Scope

This document specifies references to methods for the determination of the following specific parameters in ammonium nitrate fertilizers of high nitrogen content:

— the nitrogen content as a result of ammonium nitrate;

— pH of a solution of ammonium nitrate fertilizers of high nitrogen content;

— the particle size of ammonium nitrate fertilizers of high nitrogen content;

— the chloride content;

— the copper content.

This document is applicable to EU fertilizing products classified as PFC 1(C)(I)(a)(i-ii)(A) and PFC 7 as long as the blend only consists of EU fertilizing products classified as PFC 1(C), PFC 2 and PFC 5 and still fulfils the requirements for PFC 1(C)(I)(a)(i-ii)(A) as specified in the Regulation (EU) 2019/1009 [1].

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1482-1:2007, *Fertilizers and liming materials — Sampling and sample preparation — Part 1: Sampling*

EN 1482-2:2007, *Fertilizers and liming materials — Sampling and sample preparation — Part 2: Sample preparation*

EN 1482-3:2016, *Fertilizers and liming materials — Sampling and sample preparation — Part 3: Sampling of static heaps*

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

EN 12944-2:1999,[2] *Fertilizers and liming materials — Vocabulary — Part 2: Terms relating to fertilizers*

EN 15475:2009, *Fertilizers — Determination of ammoniacal nitrogen*

EN 15476:2009, *Fertilizers — Determination of nitric and ammoniacal nitrogen according to Devarda*

CEN/TS 17759:2022, *Inorganic fertilizers — Determination of pH of a solution of ammonium nitrate fertilizers of high nitrogen content*

CEN/TS 17760:2022, *Inorganic fertilizers — Determination of particle size of ammonium nitrate fertilizers of high nitrogen content*

CEN/TS 17761:2022, *Inorganic fertilizers — Determination of the chloride content in ammonium nitrate fertilizers of high nitrogen content*

[1] As impacted by EN 12944-1:1999/AC:2000.
[2] As impacted by EN 12944-2:1999/AC:2000.

CEN/TS 17762:2022, *Inorganic fertilizers — Determination of the copper content in ammonium nitrate fertilizers of high nitrogen content*

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.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

4 Sampling and sample preparation

4.1 Sampling

Samples taken for quality control purposes shall be representative, as described in EN 1482-1:2007. Sampling of static heaps shall be performed according to EN 1482-3:2016.

4.2 Sample preparation

The sample preparation for quality control purposes shall be performed according to EN 1482-2:2007.

5 Determination

5.1 Nitrogen content as a result of ammonium nitrate

For the determination of the nitrogen content as a result of ammonium nitrate the method as described in EN 15475:2009 or EN 15476:2009 shall be used.

5.2 pH of a solution of ammonium nitrate fertilizers of high nitrogen content

For the determination of the pH of a solution of ammonium nitrate fertilizers of high nitrogen content the method as described in CEN/TS 17759:2022 shall be used.

5.3 Particle size of ammonium nitrate fertilizers of high nitrogen content

For the determination of the particle size of ammonium nitrate fertilizers of high nitrogen content the method as described in CEN/TS 17760:2022 shall be used.

5.4 Chloride content of ammonium nitrate fertilizers of high nitrogen content

For the determination of the chloride content in ammonium nitrate fertilizers of high nitrogen content the method as described in CEN/TS 17761:2022 shall be used.

5.5 Copper content of ammonium nitrate fertilizers of high nitrogen content

For the determination of the copper content in ammonium nitrate fertilizers of high nitrogen content the method as described in CEN/TS 17762:2022 shall be used.