ICS 65.080 PREDBEŽNÁ SLOVENSKÁ TECHNICKÁ NORMA August 2022

STN P	**Anorganické hnojivá** **Stanovenie špecifických kontaminantov**	**STN P** **CEN/TS 17753** 65 5003

Inorganic fertilizers - Determination of specific contaminants

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/22

Táto predbežná slovenská technická norma je určená na overenie. Prípadné pripomienky pošlite do apríla 2024 Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

Obsahuje: CEN/TS 17753:2022

135048

TECHNICAL SPECIFICATION
SPÉCIFICATION TECHNIQUE
TECHNISCHE SPEZIFIKATION

CEN/TS 17753

April 2022

ICS 65.080

English Version

Inorganic fertilizers - Determination of specific contaminants

Engrais inorganiques - Détermination des contaminants spécifiques

Anorganische Düngemittel - Bestimmung spezifischer Kontaminanten

This Technical Specification (CEN/TS) was approved by CEN on 13 March 2022 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

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

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Ref. No. CEN/TS 17753:2022 E

CEN/TS 17753:2022 (E)

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European foreword

This document (CEN/TS 17753:2022) 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 [3] 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). Inorganic fertilizers have been classified into PFC 1(C).

The specific safety and quality requirements in relation to specific contaminants (i.e. the mercury, cadmium, nickel, copper, zinc, arsenic, lead, chromium VI, biuret, perchlorate and total chromium content) 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 [3].

1 Scope

This document specifies references to methods for the determination of the following contaminants: mercury, cadmium, nickel, copper, zinc, arsenic, lead, chromium(VI), biuret, perchlorate and total chromium content in inorganic fertilizers.

This document is applicable to EU fertilizing products classified as PFC 1(C) and PFC 7 as long as the blend only consists of EU fertilizing products classified as PFC 1(C), PFC 2 and PFC 5 as specified in the Regulation (EU) 2019/1009 [3].

An overview of the references to methods for the determination of the specific contaminants is given in Table 1.

NOTE 1 The determination of copper and zinc in inorganic fertilizers as micronutrients is covered by CEN/TS 17754:2022.

NOTE 2 The determination of copper in ammonium nitrate fertilizers of high nitrogen content is covered by CEN/TS 17751:2022.

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 15479:2009, *Fertilizers — Spectrophotometric determination of biuret in urea*

EN 16317:2013+A1:2017, *Fertilizers and liming materials — Determination of arsenic by inductively coupled plasma-atomic emission spectrometry (ICP-AES) after aqua regia dissolution*

EN 16318:2013+A1:2016, *Fertilizers and liming materials — Determination of chromium(VI) by photometry (method A) and by ion chromatography with spectrophotometric detection (method B)*

EN 16319:2013+A1:2015, *Fertilizers and liming materials — Determination of cadmium, chromium, lead and nickel by inductively coupled plasma-atomic emission spectrometry (ICP-AES) after aqua regia dissolution*

EN 16320:2013+A1:2017, *Fertilizers and liming materials — Determination of mercury by vapour generation (VG) after aqua regia dissolution*

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

EN 16962:2018, *Fertilizers — Extraction of water soluble micro-nutrients in fertilizers and removal of organic compounds from fertilizer extracts*

EN 16963:2018, *Fertilizers — Determination of boron, cobalt, copper, iron, manganese, molybdenum and zinc using ICP-AES*

EN 16964:2018, *Fertilizers — Extraction of total micro-nutrients in fertilizers using aqua regia*

EN 16965:2018, *Fertilizers — Determination of cobalt, copper, iron, manganese and zinc using flame atomic absorption spectrometry (FAAS)*

EN 17246:2019, *Fertilizers — Determination of perchlorate in mineral fertilizers by ion chromatography and conductivity detection (IC-CD)*

ISO 18643:2016, *Fertilizers and soil conditioners — Determination of biuret content of urea-based fertilizers — HPLC method*