

STN	Priemyselné hnojivá Stanovenie molybdénu v koncentráciách menších alebo rovných ako 10 % spektrometriou komplexu s tiokyanátom amónnym	STN EN 17043 65 4966
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Fertilizers - Determination of molybdenum in concentrations 10 % using spectrometry of a complex with ammonium thiocyanate

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

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English Version

**Fertilizers - Determination of molybdenum in
concentrations ≤ 10 % using spectrometry of a complex
with ammonium thiocyanate**

Engrais - Dosage du molybdène dans des
concentrations ≤ 10 % par spectrométrie d'un
complexe avec du thiocyanate d'ammonium

Düngemittel - Bestimmung von Molybdän in
Konzentrationen ≤ 10 % durch Spektrometrie eines
Komplexes mit Ammoniumthiocyanat

This European Standard was approved by CEN on 26 February 2018.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 17043:2018) 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of an identical text or by endorsement, at the latest by December 2018, and conflicting national standards shall be withdrawn at the latest by December 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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 organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 17043:2018 (E)**Introduction**

The preparation of this document by CEN is based on a mandate by the European Commission and the European Free Trade Association (Mandate M/335), concerning the modernization of methods of analysis of fertilizers in the framework of Regulation (EC) No 2003/2003 [1].

This European Standard is part of a modular approach and concerns the analytical measurement step. “Modular” means that a test standard concerns a specific step in assessing a property and not the whole chain of measurement.

The determination of molybdenum in fertilizers can be executed by inductively coupled plasma-atomic emission spectrometry (ICP-AES) according to EN 16963. The spectrophotometric determination of the complex with ammonium thiocyanate is more labour intensive and skill demanding but it is an option when ICP-AES is not available. More attention should be paid to organic matter removal and interferences from extract colour. The procedure for removal of organic matter from the extracts is specified in EN 16962, which also describes the modification of the extraction procedure using acidification with hydrochloric acid instead of nitric acid.

WARNING — Persons using this European Standard should be familiar with normal laboratory practice. This European Standard does not purport to address all of the safety issues, if any, associated with its use. It is the responsibility of the user to establish appropriate health and safety practices and to ensure compliance with any national regulatory conditions.

IMPORTANT — It is absolutely essential that tests conducted according to this European Standard are carried out by suitably trained staff.

1 Scope

This European Standard specifies a method for determination of total and water extractable molybdenum in mineral fertilizers containing less than or equal to 10 % molybdenum.

This method is applicable to water and aqua regia fertilizer extracts obtained according to EN 16962 and/or EN 16964.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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, *Fertilizers and liming materials and soil improvers - Vocabulary - Part 1: General terms*

EN 12944-2, *Fertilizers and liming materials and soil improvers - Vocabulary - Part 2: Terms relating to fertilizers*

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

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

EN ISO 3696, *Water for analytical laboratory use - Specification and test methods (ISO 3696)*

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