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Responsible committee: AW/20 Topsoil, other growing media and turf

Interested committees:

Title: BS EN 18254 Draft Soil improvers and growing media - Determination of the inorganic arsenic content.

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

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- iii) requires additional national guidance or information

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Full document details: 25/30507090 DC

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

English Version

Soil improvers and growing media - Determination of the inorganic arsenic content

Amendements du sol et supports de culture -
Détermination de la teneur en arsenic inorganique

Bodenverbesserungsmittel und Kultursubstrate -
Bestimmung des anorganischen Arsengehalts

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 223.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (prEN 18254:2025) has been prepared by Technical Committee CEN/TC 223 “Soil improvers and growing media”, the secretariat of which is held by NEN.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

Introduction

This document was prepared by the experts of CEN/TC 223 “Soil improvers and growing media”. The European Committee for Standardization (CEN) was requested by the European Commission (EC) to draft European standards or European standardization deliverables to support the implementation of Regulation (EU) 2019/1009 of 5 June 2019 laying down rules on the making available on the market of EU fertilizing products (“FPR” or “Fertilising Products Regulation”) [8].

This standardization request, presented as M/564, also contributes to the Communication on “Innovating for Sustainable Growth: A Bio economy for Europe”. The Working Group 4 “Analytical methods” was requested to develop a work programme as part of this request. The technical committee CEN/TC 223 “Soil improvers and growing media” was requested to carry out the work programme that will prepare a series of standards. The interest in soil improvers and growing media has increased significantly in Europe as a valuable tool to use in agriculture. Standardization was identified as having an important role in order to promote the use of soil improvers and growing media. The work of CEN/TC 223 seeks to improve the reliability of the supply chain, thereby boosting the confidence of farmers, industry and consumers in soil improvers and growing media and will promote and support commercialisation of the European fertilizer industry. The preparation of this document is based on a standardization request to CEN by the European Commission and the European Free Trade Association (Mandate M/564) concerning the modernization of methods of analysis of fertilizers in the framework of Regulation (EU) 2019/1009 of the European Parliament and of the Council.

This document describes a procedure of extraction and measurement for the determination of inorganic arsenic in growing media and soil improvers. The document is based on a mild acid oxidative extraction of the arsenic species followed by liquid chromatography (High Performance Liquid Chromatography – HPLC) or Ion Chromatography (IC) coupled to the element-specific detector Inductively Coupled Plasma Mass Spectrometry (ICP-MS) for the determination of the mass fraction of inorganic arsenic.

The other standards developed for determination of inorganic arsenic content in animal feeding stuffs, foodstuffs and plant biostimulants were studied as a basis of the described method [2], [3], [4], [5], [6].

1 Scope

This document specifies a method for extraction, separation, and determination of inorganic arsenic (iAs) in growing media and soil improvers using anion-exchange high performance liquid chromatography (HPLC) or ion chromatography (IC) coupled to ICP-MS.

This document is applicable to the fertilizing product blends where a blend is a mix of two or more fertilising products belonging to the categories of fertilizers, liming material, soil improvers, growing media, inhibitors and plant biostimulants, and where soil improvers and/or growing media are the components with the highest percentage in the blend by mass or volume, or in the case of products in liquid form by dry mass. If the soil improvers and/or growing media are not the components with the highest percentage in the blend, the document relevant to the component with the highest percentage in the blend applies. In case a blend is composed of fertilising products mixed in equal quantities, the user of the document decides which standard to apply.

NOTE A soil improver consists of a single bulky (volume-building) component or a mix of bulky (volume-building) components (for example peat, wood fibres, coconut coir, compost, expanded perlite).

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.

CEN/TS 17732:2022, *Soil improvers and growing media - Terminology*

EN 12579:2024, *Soil improvers and growing media - Sampling*

prEN 13040-1:2025, *Soil improvers and growing media — Sample preparation — Part 1: Sample preparation for chemical and physical tests, determination of dry matter content, moisture content and laboratory bulk density*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in CEN/TS 17732:2022 and the following apply.

3.1

analyte

parameter to be determined

3.2

blank calibration solution

solution prepared in the same way as the calibration solution but leaving out the analytes

3.3

blank test solution

solution prepared in the same way as the test sample solution but omitting the test portion

3.4

calibration solution

solution used to calibrate the instrument, prepared from stock solutions by adding acids, buffer, reference element and salts as needed