SIST

SLOVENSKI STANDARD
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Sredstva za gnojenje, sredstva za apnjenje in inhibitorji - Določanje količine (izražene kot masa ali prostornina)

Fertilizers, liming materials and inhibitors - Determination of the quantity (declared by mass or volume)

Düngemittel, Kalkdünger und Hemmstoffe - Bestimmung der Menge (durch Angabe der Masse oder des Volumens)

Engrais, amendements minéraux basiques et inhibiteurs - Détermination de la quantité (déclarée en masse ou en volume)

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65.080	Gnojila	Fertilizers

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Fertilizers, liming materials and inhibitors - Determination of the quantity (declared by mass or volume)

Engrais, amendements minéraux basiques et inhibiteurs - Détermination de la quantité (déclarée en masse ou en volume)

Düngemittel, Kalkdünger und Hemmstoffe - Bestimmung der Menge (durch Angabe der Masse oder des Volumens)

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European foreword

This document (EN 17817:2023) 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of an identical text or by endorsement, at the latest by June 2024, and conflicting national standards shall be withdrawn at the latest by June 2024.

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 standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

In order to measure compliance with the related requirements of the Regulation (EU) 2019/1009 [4] relevant test methods have to be specified in harmonized standards. In this document the determination of the quantity of organic, organo-mineral and inorganic fertilizers, liming materials, inhibitors and blends containing these fertilizing products is specified.

In this document, the term “product” is used as the generic term for the above-mentioned groups of products.

1 Scope

This document specifies methods for the determination of quantity of the following solid and liquid fertilizing products: organic fertilizers, organo-mineral fertilizers, inorganic fertilizers, liming materials and inhibitors in packages, containers or in bulk.

This document is applicable to fertilizing products blends where organic fertilizers, organo-mineral fertilizers, inorganic fertilizers, liming materials and inhibitors are the highest % of the blend by mass or volume, or in the case of liquid form by dry mass. If organic fertilizers, organo-mineral fertilizers, inorganic fertilizers, liming materials and inhibitors are not the highest % of the blend, the European Standard for the highest % of the blend applies. In case a fertilizing product blend is made up of components in equal quantity, the user decides which standard to apply.

This document is not applicable to the quantity determination of: growing media, soil improvers and plant biostimulants.

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 12580:2022, *Soil improvers and growing media — Determination of a quantity*

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

EN 15238:2022, *Soil improvers and growing media — Determination of quantity for materials with particle size greater than 60 mm*

EN 15761:2009, *Pre-shaped growing media — Determination of length, width, height, volume and bulk density*

EN 45501:2015, *Metrological aspects of non-automatic weighing instruments*

OIML R 111-1:2004, *Weights of classes E_1, E_2, F_1, F_2, M_1, M_{1-2}, M_2, M_{2-3} and M_3 — Part 1: Metrological and technical requirements*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12944-1:1999, and the following apply.

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

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

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

3.1
fertilizing product
substance, mixture, micro-organism or any other material, applied or intended to be applied on plants or their rhizosphere or on mushrooms or their mycosphere, or intended to constitute the rhizosphere or mycosphere, either on its own or mixed with other material, for the purpose of providing the plants or mushrooms with nutrient or improving their nutrition efficiency

Note 1 to entry: Based on Regulation (EU) 2019/1009 [4], Chapter 1, Article 2, (1).

3.2
organic fertilizer
fertilizer containing organic carbon and nutrients of solely biological origin

Note 1 to entry: An organic fertilizer may contain peat, leonardite and lignite, but no other material, which is fossilized or embedded in geological formations.

Note 2 to entry: Based on Regulation (EU) 2019/1009 [4], Annex I, Part II, PFC 1(A), point 1.

3.3
organo-mineral fertilizer
fertilizer, which is a co-formulation of one or more inorganic fertilizers, and one or more materials containing organic carbon and nutrients of solely biological origin

Note 1 to entry: An organo-mineral fertilizer may contain peat, leonardite and lignite, but no other material, which is fossilized or embedded in geological formations.

Note 2 to entry: Based on Regulation (EU) 2019/1009 [4], Annex I, Part II, PFC 1(B), point 1.

3.4
inorganic fertilizer
fertilizer containing or releasing nutrients in a mineral form, other than an organic or organo-mineral fertilizer

Note 1 to entry: Based on Regulation (EU) 2019/1009 [4], Annex I, Part II, PFC 1(C), point 1.

3.5
liming material
fertilizing product correcting soil acidity and containing oxides, hydroxides, carbonates or silicates of the nutrients calcium or magnesium

Note 1 to entry: Based on Regulation (EU) 2019/1009 [4], Annex I, Part II, PFC 2, point 1.

3.6
inhibitor
fertilizing product improving the nutrient release patterns of a product providing plants with nutrients by delaying or stopping the activity of specific groups of micro-organisms or enzymes

Note 1 to entry: Based on Regulation (EU) 2019/1009 [4], Annex I, Part II, PFC 5.

3.7
soil improver
fertilizing product, which maintains, improves or protects the physical or chemical properties, the structure or the biological activity of the soil to which it is added

Note 1 to entry: Based on Regulation (EU) 2019/1009 [4], Annex I, Part II, PFC 3.

3.8
growing medium
fertilizing product, other than soil in situ, for plants or mushrooms to grow in

Note 1 to entry: Based on Regulation (EU) 2019/1009 [4], Annex I, Part II, PFC 4, point 1.

3.9
plant biostimulant
fertilizing product, which stimulates plant nutrition processes independently of the product's nutrient content with the sole aim of improving nutrient use efficiency, and/or tolerance to abiotic stress, and/or quality traits, and/or availability of confined nutrients in the soil or rhizosphere

Note 1 to entry: Based on Regulation (EU) 2019/1009 [4], Annex I, Part II, PFC 6, point 1.

3.10
liquid form
suspension or solution

Note 1 to entry: Based on Regulation (EU) 2019/1009 [4], Chapter 1, Article 2, (6).

3.11
suspension
two-phase dispersion in which solid particles are maintained in suspension in the liquid phase

Note 1 to entry: Based on Regulation (EU) 2019/1009 [4], Chapter 1, Article 2, (6).

3.12
solution
liquid or gel or paste that is free of solid particles

Note 1 to entry: Based on Regulation (EU) 2019/1009 [4], Chapter 1, Article 2, (6).

3.13
solid form
form characterised by structural rigidity and resistance to changes of shape or volume and in which atoms are tightly bound to each other, either in a regular geometric lattice (crystalline solids) or in an irregular manner (an amorphous solid)

Note 1 to entry: Based on Regulation (EU) 2019/1009 [4], Chapter 1, Article 2, (7).

3.14
destructive testing
testing which involves opening or destroying of the package

Note 1 to entry: Based on Council Directive 76/211/EEC [1], Annex II, 2.

3.15
non-destructive testing
testing which does not involve the opening or destroying of the package

Note 1 to entry: Based on Council Directive 76/211/EEC [1], Annex II, 2.

3.16
weighing instrument
measuring instrument serving to determine the mass of a body by using the action of gravity on that body

Note 1 to entry: Based on Directive 2014/31/EU [2], Chapter 1, Article 2, (1).

3.17
non-automatic weighing instrument
weighing instrument requiring the intervention of an operator during the weighing process to decide that the weighing result is acceptable

Note 1 to entry: Based on Directive 2014/31/EU [2], Chapter 1, Article 2, (2).

3.18
nominal quantity
declared mass or volume of the contents of a package or container indicated on or with the package or in documentation associated with the contents

3.19
net quantity
actual mass or volume of the contents of a package

3.20
gross quantity
mass or volume of package

3.21
package
container and product contained therein which is ready for delivery or delivered and where the packaging remains with the material after delivery

3.22
container
object in which a product is delivered

EXAMPLE Bottle, box, bag, intermediate bulk container, road tanker, lorry.

3.23
bulk product
product that is not in a package