

ICS 65.080

English Version

Organic and organo-mineral fertilizers - Determination of the dry matter content

Engrais organiques et organo-minéraux -
Détermination de la teneur en matière sèche

Organische und organisch-mineralische Düngemittel -
Bestimmung des Trockenrückstands

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (CEN/TS 17773:2022) 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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This document has been prepared under a standardisation request given to CEN by the European Commission and the European Free Trade Association.

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.

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Introduction

In case of the analysis of organic and organo-mineral fertilizers, water is usually not considered a part of the sample and results are generally related to dry matter, which can be calculated by determining the dry residue (dry matter content).

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1 Scope

This document is applicable to fertilizing products, which are classified as PFC 1(A) and PFC 1(B) or the PFC 1(A) and PFC 1(B) component in PFC 7 of Regulation (EU) 2019/1009 [1]. However, the present method was not validated for blends.

This document specifies the procedure for the determination and calculation of the dry matter fraction of organic and organo-mineral fertilizers for which the results of the performed analysis are calculated to the dry matter basis.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions 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

dry residue

remaining mass fraction of a sample after a drying process at 105 °C under specified conditions

3.2

dry matter content

mass fraction of a sample excluding water calculated by the determination of dry residue

4 Principle

The samples are dried to a constant mass in an oven at 105 °C. The difference in mass before and after the drying process is used to determine dry matter content. This method applies to solid samples and samples which become solid during the drying process. Volatile compounds volatilizing at temperatures up to and including $(105 \pm 2)^\circ\text{C}$ are expressed as water using this procedure.

5 Sampling and sample preparation

Sampling and sample preparation should be performed carefully, following the principles described in EN 1482 (all parts) with appropriate adaptations, required to account for specificities of organic and organo-mineral fertilizers. Details about the sampling shall be given in the test report.

6 Interferences

The samples can change during the drying process, e.g. by absorption of carbon dioxide in the case of alkaline samples, or of oxygen by reducing substances.