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BSI Standards Publication

Characterization of waste — Guidance on the determination of the content of elements and substances in waste

bsi.

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The UK participation in its preparation was entrusted to Technical Committee EH/4, Soil quality.

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Characterization of waste - Guidance on the determination of the content of elements and substances in waste

Caractérisation des déchets - Guide pour la détermination de la teneur en éléments et substances dans les déchets

Charakterisierung von Abfällen - Leitlinien zur Bestimmung des Gehalts von Elementen und Stoffen in Abfällen

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European foreword

This document (CEN/TS 17943:2023) has been prepared by Technical Committee CEN/TC 444 “Environmental characterization of solid matrices”, the secretariat of which is held by NEN.

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Introduction

This document is intended to be used for the characterization of waste when information is needed to fulfil the requirements of the Waste Framework Directive 2008/98/EC and the EC Regulation (EU) No 1357/2014, for the classification of waste according to different hazards. This document can also be used for the Classification Labelling and Packaging (CLP) Regulation (EC) No 1272/2008.

This document deals with the determination of elements and substances in waste to assess their hazards if no information is available on their content.

1 Scope

This document provides guidance to the characterization of waste. It applies to all types of waste, with unknown or partially known composition, by giving examples of EN standards dedicated to waste characterization and analytical methods for parameters not covered by standards. Some requirements concerning the determination of inorganic elements and organic substances content in waste are given to achieve approximately 90 % or the highest possible mass.

In case information on the origin or on the composition of the waste is given by the owner of the waste, it might be sufficient to follow only part of this document to complete missing knowledge about the waste.

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 terminology 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 matter
DM
mass fraction of sample excluding water expressed as mass fraction calculated by determination of dry residue or water content

3.2
volatile organic compounds
VOC
any organic compound having an initial boiling point less than or equal to 250 °C measured at a standard atmospheric pressure of 101,3 kPa

Note 1 to entry: According to WHO, organic compound whose boiling point is in the range from (50 °C to 100 °C) to (240 °C to 260 °C).

3.3
semi-volatile organic compounds
SVOC
Organic compound whose boiling point is in the range from (240 °C to 260 °C) to (380 °C to 400 °C), according to WHO

Note 1 to entry: Boiling points of some compounds are difficult or impossible to determine because they decompose before they boil at atmospheric pressure. Vapour pressure is another criterion for classification of compound volatility that can be used for classification of organic chemicals. SVOCs have vapour pressure between 10^{-2} mPa and 10 Pa.

3.4
unidentified volatile or semi-volatile compounds
mass calculated from the unresolved chromatographic areas of the corresponding chromatograms