Irish Standard
I.S. EN 16320:2013+A1:2017

Fertilizers - Determination of trace elements - Determination of mercury by vapour generation (VG) after aqua regia dissolution

I.S. EN 16320:2013+A1:2017

Incorporating amendments/corrigenda/National Annexes issued since publication:

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NSAI	T +353 1 807 3800	Sales:
1 Swift Square,	F +353 1 807 3838	T +353 1 857 6730
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National Foreword

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 16320:2013+A1

February 2017

ICS 65.080

English Version

Fertilizers and liming materials - Determination of mercury by vapour generation (VG) after aqua regia dissolution

Engrais et amendements minéraux basiques - Détermination du mercure par génération de vapeur (VG) après digestion à l'eau régale

Düngemittel und Kalkdünger - Bestimmung von Quecksilber mit Verdampfungstechnik (VG) nach Königswasseraufschluss

This European Standard was approved by CEN on 29 August 2013 and includes Amendment 1 approved by CEN on 11 December 2016.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

This document (EN 16320:2013+A1:2017) 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of an identical text or by endorsement, at the latest by August 2017, and conflicting national standards shall be withdrawn at the latest by August 2017.

This document includes Amendment 1 approved by CEN on 11 December 2016.

This document supersedes ▌A1⟩ EN 16320:2013 ⟨A1▌.

The start and finish of text introduced or altered by amendment is indicated in the text by tags ▌A1⟩ ⟨A1▌.

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1 Scope

This European Standard specifies a method for the determination of the content of mercury in fertilizers [A1] and liming materials [A1] after extraction with aqua regia and the detection of mercury by vapour generation (VG) coupled to an atomic absorption spectrometer or an inductively coupled plasma-atomic emission spectrometer. A limit of quantification of 0,01 mg/kg is to be expected.

[A1] NOTE The term fertilizer is used throughout the body of this European Standard and includes liming materials unless otherwise indicated. [A1]

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 12944-1:1999, *Fertilizers and liming materials and soil improvers - Vocabulary - Part 1: General terms*

EN 12944-2:1999, *Fertilizers and liming materials and soil improvers - Vocabulary - Part 2: Terms relating to fertilizers*

[A1] EN 12944-3:2001, *Fertilizers and liming materials and soil improvers — Vocabulary — Part 3: Terms relating to liming materials* [A1]

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12944-1:1999 and EN 12944-2:1999 and [A1] EN 12944-3:2001 [A1]apply.

4 Principle

Mercury is extracted from the sample with aqua regia and conventional boiling. The concentration of mercury in the extract is measured by (cold) vapour generation (VG) coupled to a suitable detector, such as an atomic absorption spectrometer (AAS) or an inductively coupled plasma-atomic emission spectrometer (ICP-AES).

5 Sampling and sample preparation

Sampling is not part of the method specified in this European Standard. A recommended sampling method is given in EN 1482-1.

Sample preparation shall be carried out in accordance with EN 1482-2.