



**SLOVENSKI STANDARD**  
**SIST EN 16320:2013/oprA1:2015**  
**01-september-2015**

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**Gnojila in sredstva za apnjenje - Določevanje živega srebra s tehniko hladnih par po raztapljanju v zlatotopki**

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

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

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

**Ta slovenski standard je istoveten z:      EN 16320:2013/prA1**

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**ICS:**

65.080              Gnojila                              Fertilizers

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
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**DRAFT**  
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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 draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 260.

This draft amendment A1, if approved, will modify the European Standard EN 16320:2013. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment 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.

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

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## Foreword

This document (EN 16320:2013/prA1:2015) has been prepared by Technical Committee CEN/TC 260 "Fertilizers and liming materials", the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

**EN 16320:2013/prA1:2015 (E)****1 Modification to the Title**

Delete "Determination of trace elements" and insert "liming materials" after "fertilizers" to read the title as follows:

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

**2 Modifications to Clause 1, Scope**

Add in the 1<sup>st</sup> sentence after "fertilizers", "and liming materials" to read:

"This European Standard specifies a method for the determination of the content of mercury in fertilizers and liming materials..."

Add the following NOTE after the 1<sup>st</sup> paragraph:

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

**3 Modification to Clause 2, Normative references**

Add the following reference after EN 12944-2:1999:

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

**4 Modification to Clause 3, Terms and definitions**

Replace the 1<sup>st</sup> sentence with:

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

**5 Modification to Clause 10, Precision, Table 3**

Insert after the 2<sup>nd</sup> line the data for liming material samples:

"

Sample	$\bar{x}$	$r$	$R$
	mg/kg	mg/kg	mg/kg
Dolomitic Limestone	0,046	0,004	0,028
Burnt Lime	Only 3 laboratories	-	-
Converter Lime	Only 3 laboratories	-	-

".

## 6 Modifications to Annex A

Replace the 1<sup>st</sup> paragraph with:

"The precision of the method has been determined in an inter-laboratory trial in the year 2009 analysing samples of mineral fertilizer matrices and in the year 2013 analysing samples of liming material matrices. The statistical results are given in Table A.1 for fertilizer samples and in Table A.2 for liming material samples."

Replace the title of Table A.1 with:

"Statistical results for mercury in mineral fertilizers".

Add after Table A.1 the following Table A.2:

**"Table A.2 — Statistical results for mercury in liming materials**

Parameter	Dolomitic Limestone	Burnt Lime	Converter Lime
Number of laboratories	7	3	3
Number of laboratories retained after elimination of outliers	6	2	2
Number of outliers	1	1	1
Mean value, $\bar{x}$ (mg/kg)	0,046	-	-
Repeatability standard deviation $s_r$ (mg/kg)	0,004	-	-
Relative repeatability standard deviation $RSD_r$ %	9,13	-	-
Repeatability limit $r$ [ $r = 2,8 \times s_r$ ] (mg/kg)	0,011	-	-
Reproducibility standard deviation $s_R$ (mg/kg)	0,028	-	-
Relative reproducibility standard deviation $RSD_R$ %	60,49	-	-
Reproducibility limit $R$ [ $R = 2,8 \times s_R$ ] (mg/kg)	0,078	-	-

"