

Procedura aperta per l'affidamento della fornitura, in diciassette lotti, di materiali d'uso e prodotti di consumo da laboratorio ambientale.

Rettifiche, chiarimenti e/o risposte a quesiti di interesse generale

04-12-2017

LOTTO 4

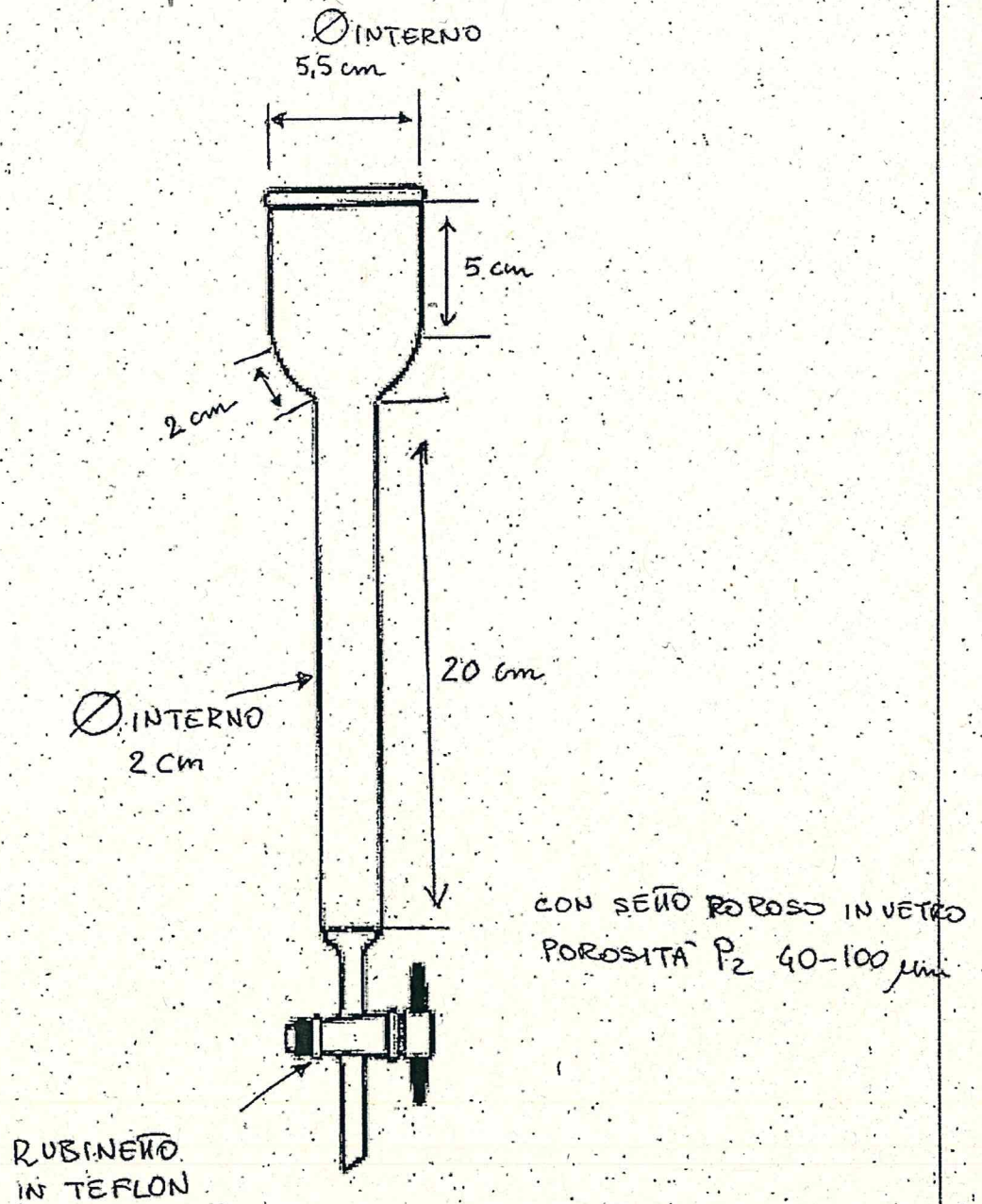
Rif	Cod. SIGIA	Descrizione prodotto	Quesito	Chiarimento
210	14399	COLONNA VETRO CROM. SETTO POROSO VETRO RUB. TEFLON (COME DISEGNO) C/SERB. CARICO	Si chiede di allegare il disegno	Si rimanda all'immagine più sotto riportata
237	15185	PROVETTA CONICA VETRO DURAN PER AUTOTRADE DA 15 ML - SVL22 (102x22mm)	Si chiede di confermare l'eventuale errore di battitura con l'indicazione "autotrade" rispetto ad autoclave, inoltre si chiede il codice di prodotto in uso con eventuale immagine o scheda.	Si conferma la descrizione del prodotto per la quale si rimanda all'immagine più sotto riportata

LOTTO 15

Rif	Cod. SIGIA	Descrizione prodotto	Quesito	Chiarimento
61	11056	STANDARD PLASMANORM SODIUM 1GR/LT - COD. VWR S850860500 O EQUIVALENTE	Si chiede di inviare i certificati d'analisi	si rimanda ai certificati più sotto riportata
62	11057	STANDARD PLASMANORM POTASSIUM 1GR/LT - COD. VWR S850850500 O EQUIVALENTE		
63	11058	STANDARD PLASMANORM MAGNESIUM 1GR/LT - COD. VWR S850880500 O EQUIVALENTE		
64	11059	STANDARD PLASMANORM CALCIUM 1GR/LT - COD. VWR S850870500 O EQUIVALENTE		

COLONNA CROMATOGRAFICA IN VETRO

LOTTO 4 Rit. 210

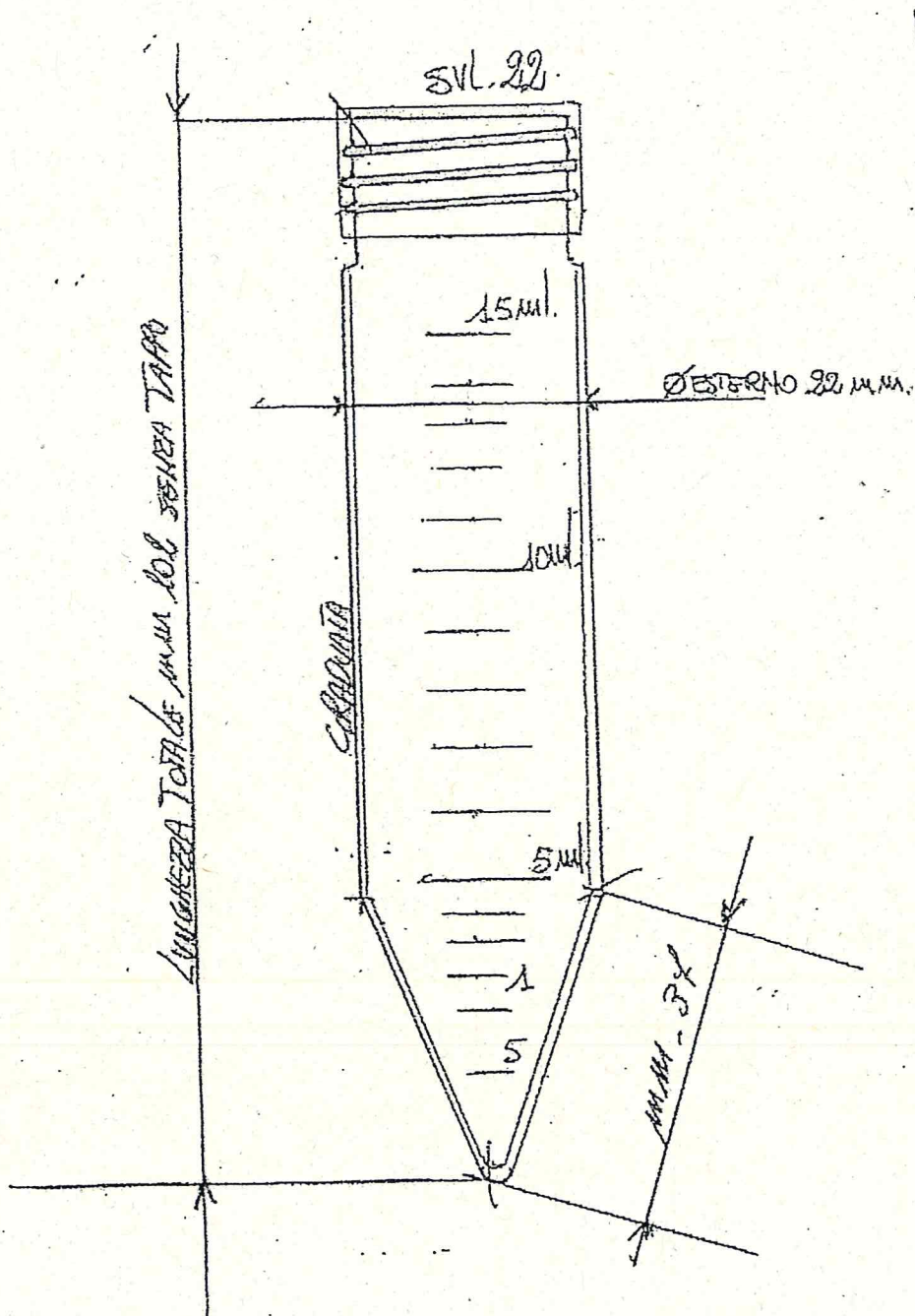


DISEGNO 1

LOTTO 4

Rif 237.

Vetro Pyrex/Duran



Lotto 15 rif 61

CERTIFIED REFERENCE MATERIAL

This document is designed and the certified value(s) and uncertainty(ies) are determined in accordance with ISO Guide 31^[1], ISO Guide 35^[2], and Eurachem / CITAC Guides^[3]

Lot N: C58912

Barcode: 83087752

Certification Date: 28.05.2015

Date of Stability last check:

Description of the Reference Material (CRM):

Solution of: Sodium (Na⁺) concentration 1.000 g/l in Water (H₂O)

Ref N:

H010.W.L5

Certified value/
Uncertainty:

Element

Certified Value and
Uncertainty [mg/l]:

Metrological traceability:

Na⁺

1000.2 ± 4.3 ^(b)

NIST SRM No 3152a Lot 120715

Method(s) of
certification used:

CRM's calibration procedure(s):

Notes:

(b) WQP 5.15:1.8

The certified value was obtained using Ion Chromatography calibration

Concept of Certification and traceability statement:

This certified reference material is produced using a high-purity starting material, acid from sub-boiling and 18 MOhm deionized water.

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k = 2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

The standard uncertainty of measurement has been determined in accordance with EA 4/02

Property of the result of a measurement whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties (ISO VIM).

The metrological traceability is assured through calibration on Ion Chromatographs. The calibration curve is drawn using a series of standard solutions prepared from a certified reference material traceable to SI of NIST (SRM) and of accredited according to ISO/IEC 17025^[4] and/or ISO Guide 34^[5] laboratories/producers. All contributions in relation to the certification of standard solutions are considered when evaluating the uncertainty.

The measurement results are traceable to SI. All analytical balances used for the preparation of the solution are calibrated yearly under an in-house procedure with analytical weights, traceable to DKD and are checked daily.

Class A laboratory glassware is used.

The results from temperature measurement are traceable to SI. The thermometers used for solution's calibration are calibrated from an ISO 17025 accredited laboratory. The ambient conditions are controlled with a hygrometer calibrated from an ISO 17025 accredited laboratory.

Starting material, purity * :

NaCl 99.999%

NaCl - 83087752

Density *:

0.997 g/cm³ at 20 °C

Minimum shelf-life:

01.2018 (unopened bottle in aluminized bag)

Date of opening:

.....

(Recommended period of use should not exceed 12 months from date of opening.)

* These values are not certified

Intended use: For Laboratory Use Only

Calibration of Ion Chromatographs

Preparation of "working reference samples"

Validation of analytical methods

Detection limit and linearity studies

This statement is not intended to restrict the use for other purposes.

Instructions for the correct use of this reference material:

This certified reference material can be used directly or can be diluted in an appropriate high-purity matrix. Only a clean class A glassware should be used. Do not pipet from container. Obtained concentration (in mg/l) after dilution is a result from the multiplication of certified value of CRM concentration and the CRM's volume used for dilution and divided into the flask's volume used for dilution.

Stability and storage:

This CRM is with a guaranteed stability until $\pm 0.5\%$ of the certified concentration within its shelf-life. Stability is guaranteed provided that the solution is kept in its original packaging, tightly closed under normal laboratory conditions. According to an in-house procedure the producer will monitor this CRM at appropriate intervals and the purchasers will be notified of any significant changes resulting in recertification or with withdrawal of the CRM during the state period of the validity of the certificate.

Hazardous situation:

The normal laboratory safety precautions should be observed when working with this RM. Further details for the handling of this RM are available as safety data sheet.

Level of homogeneity:

The material was tested for homogeneity by analyzing randomly selected samples according to an in-house procedure. The level of homogeneity proved satisfactory for a sample volume of 20 ml. The uncertainty incorporates the sample standard deviation combined with the uncertainty calculated from homogeneity and stability studies. To ensure sufficient homogeneity of the sample prior to use thoroughly mix by inversion.

Names of certifying officers:

Laboratory:



Tihomir Stoyanov

Manager:



Krassimira Taralova

- [1] ISO Guide 31: Reference materials - Contents of certificates and labels
- [2] ISO Guide 35: Reference materials - General and statistical principles for certification
- [3] EURACHEM/CITAC Guide: Quantifying Uncertainty in Analytical Measurement
- [4] ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- [5] ISO Guide 34: General Requirements for the Competence of Reference Material Producers

This certificate relates solely to the lot number given above.

All processes (including generating of this certificate) are completely controlled by the specialized Computer-Aided-Manufacturing (CAM) software.

This Certified Reference Material was produced under a quality management system that is:

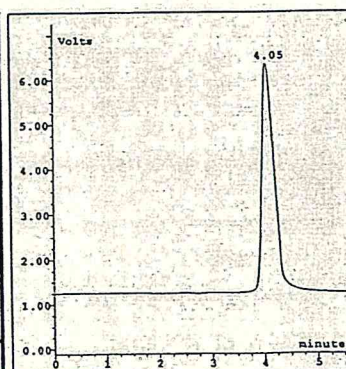
- Registered to ISO 9001 Quality Management System (Lloyd's Register Quality Assurance Ltd Cert No SOF0368072)
- Accredited according to ISO/IEC 17025 - Testing (ANAB Cert No AT-1836)
- Accredited according to ISO Guide 34 - Reference Material Producer (ANAB Cert No AR-1835)

Additional Information

(all values below are nominal and not certified)

Trace impurities in the actual solution reported in ppm:	
K ⁺	< 0.10
Mg ²⁺	< 0.05
NH ₄ ⁺	< 0.05
Ca ²⁺	< 0.05
Sr ²⁺	< 0.20

Operating Conditions Ion Chromatography:	
Column:	IonPack CS12A 4 mm
Cation Self regenerating Suppressor:	CSRS I 4 mm
Eluent Flow Rate:	1.0 ml/min
Eluent:	22 mM H ₂ SO ₄
Sample Concentration:	20 mg/l
Sample Volume:	50 µl loop



Lotto 15 rif 62

CERTIFIED REFERENCE MATERIAL

This document is designed and the certified value(s) and uncertainty(ies) are determined in accordance with ISO Guide 31^[1], ISO Guide 35^[2], and Eurachem / CITAC Guides^[3].

Lot N: C58892

Barcode: 83067471

Certification Date: 17.03.2014

Date of Stability last check: 28.01.2015

Description of the Reference Material (CRM):

Solution of: Potassium (K⁺) concentration 1.000 g/l in Water (H₂O)

Ref N:

H007.W.L5

Certified value/
Uncertainty:

Element

Certified Value and
Uncertainty [mg/l]:

Metrological traceability:

K⁺

1000.2 ± 5.1 ^(b)

NIST SRM No 3141a Lot 140813

Method(s) of
certification used:

CRM's calibration procedure(s):

Notes:

(b) WQP 5.15.1.8

The certified value was obtained using Ion
Chromatography calibration

Concept of Certification and traceability statement:

This certified reference material is produced using a high-purity starting material, acid from sub-boiling and 18 MΩm deionized water.

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k = 2$, which for a normal distribution corresponds to a coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with EA 4/02.

Property of the result of a measurement whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties (ISO VIM)

The metrological traceability is assured through calibration on Ion Chromatographs. The calibration curve is drawn using a series of standard solutions prepared from a certified reference material traceable to SI of NIST (SRM) and of accredited according to ISO/IEC 17025^[4] and/or ISO Guide 34^[5] laboratories/producers. All contributions in relation to the certification of standard solutions are considered when evaluating the uncertainty.

The measurement results are traceable to SI. All analytical balances used for the preparation of the solution are calibrated yearly under an in-house procedure with analytical weights, traceable to DKD and are checked daily. Class A laboratory glassware is used.

The results from temperature measurement are traceable to SI. The thermometers used for solution's calibration are calibrated from an ISO 17025 accredited laboratory. The ambient conditions are controlled with a hygrometer calibrated from an ISO 17025 accredited laboratory.

Starting material, purity * :

KCl 99.999%

KCl - 83067471

Density *:

1.002 g/cm³ at 20 °C

Minimum shelf-life:

01.2018 (unopened bottle in aluminized bag)

Date of opening:

.....

(Recommended period of use should not exceed 12 months from date of opening.)

* These values are not certified

Intended use: For Laboratory Use Only

Calibration of Ion Chromatographs

Preparation of "working reference samples"

Validation of analytical methods

Detection limit and linearity studies

This statement is not intended to restrict the use for other purposes.

Instructions for the correct use of this reference material:

This certified reference material can be used directly or can be diluted in an appropriate high-purity matrix. Only a clean class A glassware should be used. Do not pipet from container. Obtained concentration (in mg/l) after dilution is a result from the multiplication of certified value of CRM concentration and the CRM's volume used for dilution and divided into the flask's volume used for dilution.

Stability and storage:

This CRM is with a guaranteed stability until $\pm 0.5\%$ of the certified concentration within its shelf-life. Stability is guaranteed provided that the solution is kept in its original packaging, tightly closed under normal laboratory conditions. According to an in-house procedure the producer will monitor this CRM at appropriate intervals and the purchasers will be notified of any significant changes resulting in recertification or with withdrawal of the CRM during the state period of the validity of the certificate.

Hazardous situation:

The normal laboratory safety precautions should be observed when working with this RM. Further details for the handling of this RM are available as safety data sheet.

Level of homogeneity:

The material was tested for homogeneity by analyzing randomly selected samples according to an in-house procedure. The level of homogeneity proved satisfactory for a sample volume of 20 ml. The uncertainty incorporates the sample standard deviation combined with the uncertainty calculated from homogeneity and stability studies. To ensure sufficient homogeneity of the sample prior to use thoroughly mix by inversion.

Names of certifying officers:

Laboratory:



Tihomir Stoyanov

Manager:



Krassimira Taralova

- [1] ISO Guide 31: Reference materials - Contents of certificates and labels
- [2] ISO Guide 35: Reference materials - General and statistical principles for certification
- [3] EURACHEM/CITAC Guide: Quantifying Uncertainty in Analytical Measurement
- [4] ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- [5] ISO Guide 34: General Requirements for the Competence of Reference Material Producers

This certificate relates solely to the lot number given above.

All processes (including generating of this certificate) are completely controlled by the specialized Computer-Aided-Manufacturing (CAM) software.

This Certified Reference Material was produced under a quality management system that is:

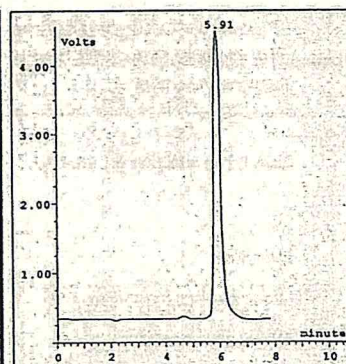
- Registered to ISO 9001 Quality Management System (Lloyd's Register Quality Assurance Ltd Cert No SOF0368072)
- Accredited according to ISO/IEC 17025 - Testing (ANAB Cert No AT-1836)
- Accredited according to ISO Guide 34 - Reference Material Producer (ANAB Cert No AR-1835)

Additional Information

(all values below are nominal and not certified)

Trace impurities in the actual solution reported in ppm:	
Na ⁺	< 0.15
Mg ²⁺	< 0.05
NH ₄ ⁺	< 0.05
Ca ²⁺	< 0.05
Sr ²⁺	< 0.25

Operating Conditions Ion Chromatography:	
Column:	IonPack CS12A 4 mm
Cation Self regenerating suppressor:	CSRS I 4 mm
Eluent Flow Rate:	1.0 ml/min
Eluent:	22 mM H ₂ SO ₄
Sample Concentration:	20 mg/l
Sample Volume:	50 µl loop



Lot 15 ref 63

CERTIFIED REFERENCE MATERIAL

This document is designed and the certified value(s) and uncertainty(ies) are determined in accordance with ISO Guide 31^[1], ISO Guide 35^[2], and Eurachem / CITAC Guides^[3]

Lot N: C58902

Barcode: 83082665

Certification Date: 04.09.2014
Date of Stability last check: 13.08.2015

Description of the Reference Material (CRM):

Solution of: Magnesium (Mg^{2+}) concentration 1.000 g/l in Water (H_2O)

Ref N:

H009.W.L5

Certified value/
Uncertainty:

Element

Certified Value and
Uncertainty [mg/l]:

Metrological traceability:

Mg^{2+}

999.2 ± 3.6 ^(b)

NIST SRM No 3131a Lot 050302

Method(s) of
certification used:

CRM's calibration procedure(s):

Notes:

(b) WQP 5.15.1.8

The certified value was obtained using Ion
Chromatography calibration

Concept of Certification and traceability statement:

This certified reference material is produced using a high-purity starting material, acid from sub-boiling and 18 MOhm deionized water.

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k = 2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

The standard uncertainty of measurement has been determined in accordance with EA 4/02.

Property of the result of a measurement whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties (ISO VIM).

The metrological traceability is assured through calibration on Ion Chromatographs. The calibration curve is drawn using a series of standard solutions prepared from a certified reference material traceable to SI of NIST (SRM) and of accredited according to ISO/IEC 17025^[4] and/or ISO Guide 34^[5] laboratories/producers. All contributions in relation to the certification of standard solutions are considered when evaluating the uncertainty.

The measurement results are traceable to SI. All analytical balances used for the preparation of the solution are calibrated yearly under an in-house procedure with analytical weights, traceable to DKD and are checked daily. Class A laboratory glassware is used.

The results from temperature measurement are traceable to SI. The thermometers used for solution's calibration are calibrated from an ISO 17025 accredited laboratory. The ambient conditions are controlled with a hygrometer calibrated from an ISO 17025 accredited laboratory.

Starting material, purity * :

$MgCl_2$ 99.999%

$MgCl_2$ - 83082665

Density * :

0.998 g/cm³ at 20 °C

Minimum shelf-life:

01.2018 (unopened bottle in aluminized bag)

Date of opening:

.....

(Recommended period of use should not exceed 12 months from date of opening.)

* These values are not certified

Intended use: For Laboratory Use Only

Calibration of Ion Chromatographs
Preparation of "working reference samples"

Validation of analytical methods
Detection limit and linearity studies

This statement is not intended to restrict the use for other purposes.

Instructions for the correct use of this reference material:

This certified reference material can be used directly or can be diluted in an appropriate high-purity matrix. Only a clean class A glassware should be used. Do not pipet from container. Obtained concentration (in mg/l) after dilution is a result from the multiplication of certified value of CRM concentration and the CRM's volume used for dilution and divided into the flask's volume used for dilution.

Stability and storage:

This CRM is with a guaranteed stability until $\pm 0.5\%$ of the certified concentration within its shelf-life. Stability is guaranteed provided that the solution is kept in its original packaging, tightly closed under normal laboratory conditions. According to an in-house procedure the producer will monitor this CRM at appropriate intervals and the purchasers will be notified of any significant changes resulting in recertification or with withdrawal of the CRM during the state period of the validity of the certificate.

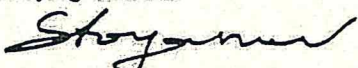
Hazardous situation:

The normal laboratory safety precautions should be observed when working with this RM. Further details for the handling of this RM are available as safety data sheet.

Level of homogeneity:

The material was tested for homogeneity by analyzing randomly selected samples according to an in-house procedure. The level of homogeneity proved satisfactory for a sample volume of 20 ml. The uncertainty incorporates the sample standard deviation combined with the uncertainty calculated from homogeneity and stability studies. To ensure sufficient homogeneity of the sample prior to use thoroughly mix by inversion.

Names of certifying officers:

Laboratory:  Tihomir Stoyanov

Manager:  Krassimira Taralova

- [1] ISO Guide 31: Reference materials - Contents of certificates and labels
- [2] ISO Guide 35: Reference materials - General and statistical principles for certification
- [3] EURACHEM/CITAC Guide: Quantifying Uncertainty in Analytical Measurement
- [4] ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- [5] ISO Guide 34: General Requirements for the Competence of Reference Material Producers

This certificate relates solely to the lot number given above.

All processes (including generating of this certificate) are completely controlled by the specialized Computer-Aided-Manufacturing (CAM) software.

This Certified Reference Material was produced under a quality management system that is:

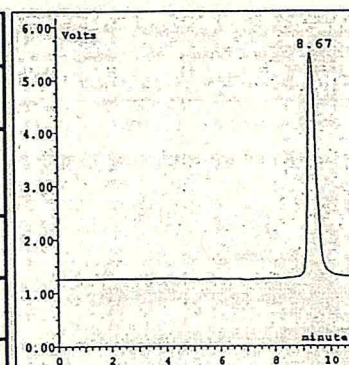
- Registered to ISO 9001 Quality Management System (Lloyd's Register Quality Assurance Ltd Cert No SOF0368072)
- Accredited according to ISO/IEC 17025 - Testing (ANAB Cert No AT-1836)
- Accredited according to ISO Guide 34 - Reference Material Producer (ANAB Cert No AR-1835)

Additional Information

(all values below are nominal and not certified)

Trace impurities in the actual solution reported in ppm:	
Na ⁺	< 0.15
K ⁺	< 0.10
NH ₄ ⁺	< 0.05
Ca ²⁺	< 0.05
Sr ²⁺	< 0.05

Operating Conditions Ion Chromatography:	
Column:	IonPack CS12A 4 mm
Cation Self regenerating Suppressor:	CSRS I 4 mm
Eluent Flow Rate:	1.0 ml/min
Eluent:	22 mM H ₂ SO ₄
Sample Concentration:	10 mg/l
Sample Volume:	50 µl loop



Lot 15 ref 64

CERTIFIED REFERENCE MATERIAL

This document is designed and the certified value(s) and uncertainty(ies) are determined in accordance with ISO Guide 31^[1], ISO Guide 35^[2], and Eurachem / CITAC Guides^[3]

Lot N: C58882

Barcode: 83077364

Certification Date: 14.05.2014

Date of Stability last check: 09.04.2015

Description of the Reference Material (CRM):

Solution of: Calcium (Ca^{2+}) concentration 1.000 g/l in Water (H_2O)

Ref N:

H002.W.L5

Certified value/
Uncertainty:

Element

Certified Value and
Uncertainty [mg/l]:

Metrological traceability:

Ca^{2+}

1001.0 $\pm$ 3.7 ^(b)

NIST SRM No 3109a Lot 130213

Method(s) of
certification used:

CRM's calibration procedure(s):

Notes:

(b) WQP 5.15.1.8

The certified value was obtained using Ion
Chromatography calibration

Concept of Certification and traceability statement:

This certified reference material is produced using a high-purity starting material, acid from sub-boiling and 18 MOhm deionized water.

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k = 2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

The standard uncertainty of measurement has been determined in accordance with EA 4/02

Property of the result of a measurement whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties (ISO VIM)

The metrological traceability is assured through calibration on Ion Chromatographs. The calibration curve is drawn using a series of standard solutions prepared from a certified reference material traceable to SI of NIST (SRM) and of accredited according to ISO/IEC 17025^[4] and/or ISO Guide 34^[5] laboratories/producers. All contributions in relation to the certification of standard solutions are considered when evaluating the uncertainty.

The measurement results are traceable to SI. All analytical balances used for the preparation of the solution are calibrated yearly under an in-house procedure with analytical weights, traceable to DKD and are checked daily. Glass A laboratory glassware is used.

The results from temperature measurement are traceable to SI. The thermometers used for solution's calibration are calibrated from an ISO 17025 accredited laboratory. The ambient conditions are controlled with a hygrometer calibrated from an ISO 17025 accredited laboratory.

Starting material, purity *:

CaCl_2 99.999%

CaCl_2 - 83077364

Density *:

0.999 g/cm³ at 20 °C

Minimum shelf-life:

01.2018 (unopened bottle in aluminized bag)

Date of opening:

.....

(Recommended period of use should not exceed 12 months from date of opening.)

* These values are not certified

Intended use: For Laboratory Use Only

Calibration of Ion Chromatographs
Preparation of "working reference samples"

Validation of analytical methods
Detection limit and linearity studies

This statement is not intended to restrict the use for other purposes.

Instructions for the correct use of this reference material:

This certified reference material can be used directly or can be diluted in an appropriate high-purity matrix. Only a clean class A glassware should be used. Do not pipet from container. Obtained concentration (in mg/l) after dilution is a result from the multiplication of certified value of CRM concentration and the CRM's volume used for dilution and divided into the flask's volume used for dilution.

Stability and storage:

This CRM is with a guaranteed stability until $\pm 0.5\%$ of the certified concentration within its shelf-life. Stability is guaranteed provided that the solution is kept in its original packaging, tightly closed under normal laboratory conditions. According to an in-house procedure the producer will monitor this CRM at appropriate intervals and the purchasers will be notified of any significant changes resulting in recertification or with withdrawal of the CRM during the state period of the validity of the certificate.

Hazardous situation:

The normal laboratory safety precautions should be observed when working with this RM. Further details for the handling of this RM are available as safety data sheet.

Level of homogeneity:

The material was tested for homogeneity by analyzing randomly selected samples according to an in-house procedure. The level of homogeneity proved satisfactory for a sample volume of 20 ml. The uncertainty incorporates the sample standard deviation combined with the uncertainty calculated from homogeneity and stability studies. To ensure sufficient homogeneity of the sample prior to use thoroughly mix by inversion.

Names of certifying officers:

Laboratory:



Tihomir Stoyanov

Manager:



Krassimira Taralova

- [1] ISO Guide 31: Reference materials - Contents of certificates and labels
- [2] ISO Guide 35: Reference materials - General and statistical principles for certification
- [3] EURACHEM/CITAC Guide: Quantifying Uncertainty in Analytical Measurement
- [4] ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- [5] ISO Guide 34: General Requirements for the Competence of Reference Material Producers

This certificate relates solely to the lot number given above.

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This Certified Reference Material was produced under a quality management system that is:

- Registered to ISO 9001 Quality Management System (Lloyd's Register Quality Assurance Ltd Cert No SOF0368072)
- Accredited according to ISO/IEC 17025 - Testing (ANAB Cert No AT-1836)
- Accredited according to ISO Guide 34 - Reference Material Producer (ANAB Cert No AR-1835)

Additional Information

(all values below are nominal and not certified)

Trace impurities in the actual solution reported in ppm:	
Na ⁺	< 0.15
Mg ²⁺	< 0.05
NH ₄ ⁺	< 0.05
K ⁺	< 0.10
Sr ²⁺	< 0.25

Operating Conditions Ion Chromatography:	
Column:	IonPac CS12A 4 mm
Cation Self regenerating Suppressor:	CSRS I 4 mm
Eluent Flow Rate:	1.0 ml/min
Eluent:	22 mN H ₂ SO ₄
Sample Concentration:	20 mg/l
Sample Volume:	50 µl loop

