CPAchem
The experts in custom-made Certified Reference Materials

Certificate of Analysis

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], EA 4/02 and Eurachem / CITAC Guides[3]

Lot N: XXXXXX Barcode: XXXXXXXX Certification Date: XXXXXXXXXX

Description of the SRM:	Sodium chloride
CAS N:	7647-14-5
Ref N:	PSNACLC.50G
Calibration method:	CRM's calibration procedure (WQP 5.15.1.25)
Metal Purity and Uncertainty (% (w/w)) and Metrological traceability:	99.9968 +/- 0.00324 ** 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.* *The certified value has been established by subtracting the sum of the mass fractions of the measured metal impurities from the value ideal purity of 100% (1 000 000 mg/kg).* *The certified value with associated measurement uncertainty has been established by measuring the impurities in a high purity material using a variety of measurement methods. The quantity values for the individual impurities are given as additional information in Table 1. These quantity values are not certified values* *All analytical balances used are calibrated yearly under an in-house procedure RPK 5.15.1.3 with class E1 and class E2 analytical weights, traceable to DKD and are daily checked.* *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..*
Assay (%):	as Na – 39.35 +/- 0.26 as Cl – 60.08 +/- 0.28
Expiry date:	XXXXXX

Intended use:

For Laboratory Use Only

This CRM is intended for:

I is intended to be used to prepare gravimetrically measurement standards (solid or solution)

II Validation of analytical methods

III Preparation of "working reference samples"

IV 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:

The CRM should be thoroughly mixed by repeatedly inverting and rotating the bottle horizontally before removing a test portion for analysis.

This material may be used directly from the bottle without pre-treatment. No additional drying is required. The material should be stored in its tightly sealed, original bottle in a cool, dry location.

Stability and storage:

SAMPLE

CPAchem Ltd
www.cpachem.com
e-mail: info@cpachem.com; tel.:+359 42 60 77 16
for France, Belgium and Switzerland:
e-mail: acsd2@wanadoo.fr; tel.:01 30 57 57 32 / fax: 01 30 57 57 33

Tests show the material to be dry as-received and will not adsorb appreciable water when exposed to a 90 % relative humidity atmosphere for short terms.

This CRM is with a guaranteed stability until ?0.5% of the certified value 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:

This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.
A minimum mass of 50 mg should be used for analytical determinations to be related to the mass fraction values in this Certificate of Analysis. Samples less than 50 mg are not recommended in order to avoid possible heterogeneity with smaller sample sizes.

This Certified reference Material was produced under ISO 9001:2008 Quality Control System.
The instructions of the ISO 17034:2016 "General Requirements for the Competence of Reference Material Producers" were considered for the preparation of this solution.
Certificate of analysis was prepared according to ISO Guide 31:2000 ?Reference materials - Contents of certificates and labels?.

Names of certifying officers:
Laboratory: Ognyan Todorov

Manager: Krassimira Taralova

**This certificate has been computer generated and does not signated*

end.

[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] EA 4/02: Expression of the Uncertainty of Measurement in Calibration
[5] ISO/IEC Guide 99: International Vocabulary of Metrology-Basic and general concepts and associated terms (VIM)
[6] ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
[7] ISO 17034: 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.

Digitally signed by Iurcu Nicolae
Date: 2026.02.21 23:25:36 EET
Reason: MoldSign Signature
Location: Moldova
MOLDOVA EUROPEANĂ

Additional information

Measured metal impurities of 1% solution reported in ppm:
(all values below are nominal and not certified)

Ag	ICP/OES, ICP/MS	<0.00396	Li	ICP/OES, ICP/MS	0.002
Al	ICP/OES, ICP/MS	<0.001782	Mg	ICP/OES, ICP/MS	<0.0005
As	ICP/OES, ICP/MS	0.030	Mn	ICP/OES, ICP/MS	0.0055
B	ICP/OES, ICP/MS	<0.0229	Mo	ICP/OES, ICP/MS	<0.0037
Ba	ICP/OES, ICP/MS	0.004	Na	ICP/OES, AAS	*
Be	ICP/OES, ICP/MS	<0.0231	Ni	ICP/OES, ICP/MS	<0.002
Bi	ICP/OES, ICP/MS	<0.00001	Pb	ICP/OES, ICP/MS	0.008
Ca	ICP/OES, ICP/MS	0.0064	Sb	ICP/OES, ICP/MS	<0.0001
Cd	ICP/OES, ICP/MS	0.003	Se	ICP/OES, ICP/MS	0.020
Co	ICP/OES, ICP/MS	0.002	Sr	ICP/OES, ICP/MS	0.0005
Cr	ICP/OES, ICP/MS	<0.0014	Ti	ICP/OES, ICP/MS	0.0206
Cu	ICP/OES, ICP/MS	0.032	Tl	ICP/OES, ICP/MS	<0.00024
Fe	ICP/OES, ICP/MS	<0.113	V	ICP/OES, ICP/MS	0.0018
K	ICP/OES, ICP/MS	<0.285	Zn	ICP/OES, ICP/MS	0.062

Measured anion impurities of 1% solution reported in ppm:
(all values below are nominal and not certified)

F^-	Ion Chromatograph	<0.004	NO_{3}^-	Ion Chromatograph	<0.002
Cl^-	Ion Chromatograph	*	NO_{2}^-	Ion Chromatograph	<0.003
Br^-	Ion Chromatograph	<0.002	PO_{43-}	Ion Chromatograph	<0.005
SO_{42-}	Ion Chromatograph	<0.006			

Signed by: Taralova, *Chemical Production Manager*