

Certificate of Analysis

Product Name: Custom Standard

Product Number: ICUS-2792

Lot Issue Date: 10-Dec-2019

Lot Number: 0006507189

Expiration Date: 31-Jan-2021

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration \pm Uncertainty
ammonium sulfate (ICP grade) (as sulfur)	007783-20-2	RM13482	500.1 \pm 2.5 mg/L
cerium (III) nitrate (ICP grade) (as cerium)	010294-41-4	RM07893	100.1 \pm 0.5 mg/L
copper (II) nitrate hydrate (ICP grade) (as copper)	010031-43-3	RM14621	100.0 \pm 0.5 mg/L
europium oxide (ICP grade) (as europium)	007440-53-1	RM12418	100.0 \pm 0.5 mg/L
indium (ICP grade)	007440-74-6	RM13348	100.0 \pm 0.5 mg/L
iron (III) nitrate, ferric nitrate (ICP grade) (as iron)	007782-61-8	RM14491	100.2 \pm 0.5 mg/L
nickel (II) nitrate hexahydrate (ICP grade) (as nickel)	013478-00-7	RM13880	100.1 \pm 0.5 mg/L
ammonium (dihydrogen) phosphate - monobasic (ICP grade) (as phosphorus)	007722-76-1	RM10630	100.1 \pm 0.5 mg/L
potassium nitrate (ICP grade) (as potassium)	007757-79-1	RM14170	100.0 \pm 0.5 mg/L
ammonium hexafluorosilicate (ICP grade) (as silicon)	016919-19-0	RM11386	100.1 \pm 0.5 mg/L
ammonium hexafluorotitanate (IV) (ICP grade) (as titanium)	016962-40-6	RM13803	100.1 \pm 0.5 mg/L
ammonium metavanadate (ICP grade) (as vanadium)	007803-55-6	RM12372	100.1 \pm 0.5 mg/L
yttrium oxide (ICP grade) (as yttrium)	001314-36-9	RM13832	100.1 \pm 0.5 mg/L
zirconyl nitrate hydrate (ICP grade) (as zirconium)	007440-67-7	RM10631	100.2 \pm 0.5 mg/L
manganese (II) nitrate (ICP grade) (as manganese)	010377-66-9	RM12175	50.0 \pm 0.3 mg/L
molybdenum (VI) oxide (ICP grade) (as molybdenum)	001313-27-5	RM07695	50.1 \pm 0.3 mg/L

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scandium oxide (ICP grade) (as scandium)	012060-08-1	RM10780	50.1 ± 0.3 mg/L
sodium nitrate (ICP grade) (as sodium)	007631-99-4	RM10629	50.1 ± 0.3 mg/L
beryllium acetate (ICP grade) (as beryllium)	000543-81-7	RM10258	20.0 ± 0.1 mg/L
lithium carbonate (ICP grade) (as lithium)	000554-13-2	RM07634	20.0 ± 0.1 mg/L
strontium nitrate (ICP grade) (as strontium)	010042-76-9	RM09221	20.0 ± 0.1 mg/L
calcium carbonate (ICP grade) (as calcium)	000471-34-1	RM13004	10.0 ± 0.1 mg/L

Matrix: 5% nitric acid with trace hydrofluoric acid in water**Storage Conditions:** Store at Room Temperature (15° to 30°C).**Traceability:**

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:
Monica Bourgeois
QMS RepresentativeISO 17034 Cert No.
AR-1936RM was produced in accordance with TUV USA Inc registered ISO
9001 Quality Management System. Cert # 56 100 18560026

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CSD-QA-015.1ISO 17025 Cert
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