

Certificate of Analysis

Custom Organic Std - Acetone at 10 mg/mL

Product Number: CUS-00003726 **Page:** 1 of 2
Lot Number: 0006550536 **Lot Issue Date:** 18-Aug-2020 **Expiration Date:** 31-Aug-2022

This Certified Reference Material (CRM) is intended for use as a calibration standard for the quantitative determination of the analyte listed. The CRM was developed, manufactured, and verified in accordance with Agilent's ISO 9001 registered quality system, ISO 17034 and ISO Guide 35. The certified concentration value reported for the analyte is based upon the gravimetric and volumetric measurements made during the preparation of the CRM. The analyte concentrations were verified by Agilent's ISO 17025 accredited laboratory using an appropriate analytical technique. This certificate was designed in accordance to ISO 17034 and ISO Guide 31.

Analyte	CAS#	Analyte Lot	Certified Value
acetone	000067-64-1	RM13102	10.1 ± 0.1 mg/mL

Matrix: n-butanol

Traceability:

Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, 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 819.

Estimation of Uncertainties:

Uncertainties in certified values are estimated in accordance with ISO 17034 and ISO Guide 35, and include assessments of the uncertainty contributions resulting from the gravimetric characterization of the reference material (u_{char}), the packaging of the reference material into individual units (u_{bb}), the transportation of the reference material to the end user (u_{sts}), and the long term storage of the reference material (u_{lts}). The uncertainty (U) is reported as an expanded uncertainty calculated as:

$$U = k\sqrt{u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2}$$

using a coverage factor of $k=2$, which gives a level of confidence of approximately 95%.

Description:

The CRM is packaged in sealed amber ampules to ensure the integrity of the solution. Each ampule contains slightly more than the stated volume of solution to facilitate transfer of the standard using a syringe.



ISO 17034 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

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Storage:

Store Frozen (-25° to -10°C).

Store the CRM according to directions noted above. Unless otherwise specified, refrigeration (< 4°C) is recommended if storing for extended periods. Do not store at temperatures greater than 35°C.

Instructions for Use:

Should crystallization occur during refrigeration, gentle warming (< 40°C) and shaking of the sealed ampule is usually sufficient to re-dissolve the material. If this is unsuccessful, an ultrasonic bath may be used. Solutions containing volatile components (such as gases) should be chilled prior to opening to minimize headspace problems. Since this is a solution, there is no minimum subsample size required to be drawn.

To open the ampule, ensure that none of the solution is trapped in the ampule's neck (tap gently until the solution drains to the body of the ampule). Open the pre-scored ampule by applying opposing pressure between the ampule's neck and body.

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

Expiration of Certification:

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

Maintenance of Certification:

The long term stability of this CRM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, Agilent Technologies will notify the purchaser.

Product Hazards:

Safety Data Sheets are available on www.agilent.com or by contacting our Technical Service department.


Monica Bourgeois
QMS Representative



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