

# Certificate of Analysis

## Calcium AA Standard, 1000 ppm Ca in 3% HCl

**Lot Number:** 4403F28**Product Number:** ACA1KH**Manufacture Date:** MAR 06, 2024**Expiration Date:** FEB 2026

The certified value for this product is confirmed in independent testing by a second qualified chemist.  
The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3109a.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Hydrochloric Acid	7647-01-0	Trace Metals
Calcium Carbonate	471-34-1	ACS Chelometric

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. EDTA/Eriochrome Black T)	995-1005 ppm Ca	1000 ppm Ca	915

Specification	Reference
Calcium AA Standard, 1 mL = 1 mg Ca (1,000 ppm Ca) CaCO <sub>3</sub> in 3% HCl	EPA (215.1)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
ACA1KH-100	100 mL natural LDPE	24 months

**Recommended Storage:** 15°C - 30°C (59°F - 86°F)

Paul Brandon (03/06/2024)

Production Manager

This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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