

# Certificate of Analysis

## Cobalt AA Standard, 1000 ppm Co in 3% HCl

**Lot Number:** 4309F40

**Product Number:** ACO1KH

**Manufacture Date:** SEP 07, 2023

**Expiration Date:** AUG 2025

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 3113.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Hydrochloric Acid	7647-01-0	Trace Metals
Cobalt	7440-48-4	High Purity

Test	Specification	Result	NIST SRM#
Appearance	Light pink liquid	Passed	
Assay (vs. EDTA/Xylenol Orange)	995-1005 ppm Co	1000 ppm Co	915

Specification	Reference
---------------	-----------

Cobalt AA Standard, 1 mL = 1 mg Co (1,000 ppm Co) Co in 3% HCl      EPA (219.1)

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)
ACO1KH-100	100 mL natural LDPE	24 months

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



Paul Brandon (09/07/2023)

Production Manager

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

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.