RICCA CHEMICAL COMPANY®

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Certificate of Analysis

Cobaltous Chloride CS, USP / EP Red Primary Solution
1 mL = 59.5 mg $CoCl_2 \cdot 6H_2O$

Lot Number: 46091049 **Product Number:** 2210

Manufacture Date: SEP 17, 2026
Expiration Date: MAR 2028

Cupric Sulfate Colorimetric Solution (CS), 1.00 mL = 62.4 mg $CuSO_4 \cdot 5H_2O$ (RICCA CHEMICAL COMPANY Cat. No. 2495), Ferric Chloride Colorimetric Solution (CS), 1.00 mL = 45.0 mg $FeCl_3 \cdot 6H_2O$ (RICCA CHEMICAL COMPANY Cat. No. 3110), and high purity, ACS Reagent Grade Water (RICCA CHEMICAL COMPANY Cat. No. 9150) are used with this solution to prepare "Matching Fluids" (for use as liquid color standards) by the instructions given in the USP procedure for "Color and Achromicity."

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Cobalt (II) Chloride Hexahydrate	7791-13-1	ACS
Hydrochloric Acid	7647-01-0	ACS

Test	Specification	Result	NIST SRM#
Appearance	Dark red liquid	Passed	
Assay (vs. EDTA/Xylenol Orange)	59.48-59.52 mg/mL	59.51 mg/mL	915

Specification	Reference
Cobaltous Chloride Solution (0.5 N)	ASTM (D 612)
Cobaltous chloride Solution (0.5 N)	ASTM (D 565)
Red primary solution	EP (2.2.2)
Cobaltous Chloride CS	USP (N/A)

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)
2210-4	120 mL amber glass	18 months

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

Jose Pena (09/17/2026)
Plant Manager I

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