

# Certificate of Analysis

**Copper Standard, 5 ppm Cu in dil. HNO<sub>3</sub>**

**Lot Number:** 1402E83

**Product Number:** 2285

**Manufacture Date:** FEB 28, 2024

**Expiration Date:** FEB 2025

This product was prepared volumetrically from a more concentrated solution that was titrated and is certified traceable to NIST Standard Reference Material 136. The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

| Name                        | CAS#      | Grade           |
|-----------------------------|-----------|-----------------|
| Water                       | 7732-18-5 | ACS/ASTM/USP/EP |
| Nitric Acid                 | 7697-37-2 | ACS             |
| Copper Sulfate Pentahydrate | 7758-99-8 | ACS             |

| Test        | Specification                  | Result   | NIST SRM# |
|-------------|--------------------------------|----------|-----------|
| Appearance  | Colorless to light blue liquid | Passed   |           |
| Copper (Cu) | 4.97-5.03 ppm                  | 5.00 ppm | 3114      |

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) |
|-------------|---------------------|---------------------------------|
| 2285-1      | 4 L natural poly    | 12 months                       |

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



Heidi J Green (02/28/2024)

Operations Manager

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

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