

Certificate of Analysis

Bismuth AA Standard, 1000 ppm Bi in 3% HNO₃

Lot Number: 4403G80

Product Number: ABI1KN

Manufacture Date: MAR 11, 2024

Expiration Date: FEB 2026

This is a single element solution that was prepared volumetrically to contain the certified value reported. The uncertainty associated with the certified value is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.

The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3106.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Nitric Acid	7697-37-2	Trace Metals
Bismuth	7440-69-9	High Purity

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Bismuth (Bi)	995-1005 ppm	1000 ppm	3106

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)
ABI1KN-500	500 mL natural poly	24 months

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



Paul Brandon (03/11/2024)

Production Manager

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

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