

Certificate of Analysis

Reagent Alcohol, 50% (v/v)**Lot Number:** 4312J88**Product Number:** 2546.50**Manufacture Date:** DEC 28, 2023**Expiration Date:** DEC 2025

Reagent Alcohol consists of approximately 90% Ethanol, CAS No. 64-17-5, 5% Methanol, CAS No. 67-56-1, and 5% Isopropyl Alcohol, CAS No. 67-63-0.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ethyl Alcohol	64-17-5	ACS
Isopropyl Alcohol	67-63-0	ACS
Methyl Alcohol	67-56-1	ACS

Test	Specification	Result
Appearance	Colorless liquid	Passed
Assay (by Specific Gravity)	49.0-51.0 % (v/v)	50.2 % (v/v)

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)
2546.50-1	4 L natural poly	24 months

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

Paul Brandon (12/28/2023)

Production Manager

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

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