

Certificate of Analysis

Hydrochloric Acid, 4% (v/v)**Lot Number:** 2309G77**Product Number:** 3567.4**Manufacture Date:** SEP 12, 2023**Expiration Date:** AUG 2026

| Name | CAS# | Grade |
|-------------------|-----------|-----------------|
| Water | 7732-18-5 | ACS/ASTM/USP/EP |
| Hydrochloric Acid | 7647-01-0 | ACS |

| Test | Specification | Result | NIST SRM# |
|--|-------------------|--------------|-----------|
| Appearance | Colorless liquid | Passed | |
| Assay (vs. Sodium Hydroxide/Phenolphthalein) | 3.96-4.04 % (v/v) | 4.02 % (v/v) | 84 |

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) |
|-------------|------------------------------|---------------------------------|
| 3567.4-5 | 20 L Cubitainer [®] | 36 months |

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

Sharon Travers (09/12/2023)

Operations Manager

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

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