

# Certificate of Analysis

**Hydrochloric Acid, 25% (v/v)****Lot Number:** 2403K22**Product Number:** 3577**Manufacture Date:** MAR 21, 2024**Expiration Date:** MAR 2027

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

Test	Specification	Result	NIST SRM#
Appearance	Colorless to slightly greenish-yellow liquid	Passed	
Assay (vs. Sodium Hydroxide/Phenolphthalein)	24.9-25.1 % (v/v)	24.9 % (v/v)	84

Specification	Reference
Hydrochloric Acid (1+3)	ASTM (D 3869 A)
Hydrochloric Acid (1+3)	ASTM (D 128)
Hydrochloric Acid, Dilute (1+3)	ASTM (D 3712)

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)
3577-1	4 L natural poly	36 months
3577-16	500 mL natural poly	36 months
3577-5	20 L Cubitainer®	36 months

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

Jose Pena (03/21/2024)

Operations Manager

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

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