

# Certificate of Analysis

**Hydrochloric Acid, 0.0100 Normal (N/100)****Lot Number:** 2310H99**Product Number:** 3590**Manufacture Date:** OCT 09, 2023**Expiration Date:** SEP 2025

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)	0.00995-0.01005 N at 20°C	0.01003 N at 20°C	84

Specification	Reference
Hydrochloric acid, 0.010 N	TAPPI (T 237 om-93)
Hydrochloric acid, 0.01 N	TAPPI (T 428 om-91)
Hydrochloric acid, 0.01 N	TAPPI (T 610 sp-97)
Hydrochloric Acid, 0.1 N	ASTM (D 4047)
Hydrochloric Acid (1+1199)	ASTM (D 4922)
Hydrochloric acid, dilute R1	EP (1043504)

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)
3590-2.5	10 L Cubitainer®	24 months
3590-5	20 L Cubitainer®	24 months

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

Sharon Travers (10/09/2023)

Operations Manager

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

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.