448 West Fork Dr Arlington, TX 76012 http://www.riccachemical.com 1-888-GO-RICCA customerservice@riccachemical.com

Certificate of Analysis

Hydrochloric Acid, 1.00 Normal

Lot Number: 1106B60 Product Number: 3700

Manufacture Date: JUL 07, 2021

Expiration Date: JUN 2023

The certified value for this product is confirmed in independent testing by a second qualified chemist.

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.	0.999-1.001 N at 20°C	1.000 N at 20°C	723
Tris(hydroxymethyl)aminomethane/Methyl Red)			

Specification	Reference
Hydrochloric Acid, 1 N	APHA (3500-Se E)
Hydrochloric Acid Solution, 1 N	APHA (4500-NO3- B)
Hydrochloric acid, 1N HCl	TAPPI (T 613 cm-83)
Hydrochloric Acid (1 N)	EPA (SW-846) (1311)
Hydrochloric acid, approximately 1 N	TAPPI (T 255 cm-97)
Hydrochloric acid, 1 M	TAPPI (T 408 cm-97)
Hydrochloric acid, 1 N	TAPPI (T 610 sp-97)
Hydrochloric Acid, 1 N	ASTM (D 4047)
1 N hydrochloric acid	TAPPI (T 553 pm-92)
Hydrochloric Acid, Standard Solution (1.0 N)	ASTM (D 2187 I)
Hydrochloric Acid, 1 Normal Volumetric Solution	ACS (N/A)
1 M Hydrochloric acid Volumetric Solution	EP (3001800)
Hydrochloric Acid, Normal (1 N) Volumetric Solution	USP (N/A)

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)
3700-1	4 L natural poly	24 months
3700-1CS	4 x 4 L natural poly	24 months
3700-32	1 L natural poly	24 months
3700-5	20 L Cubitainer®	24 months

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

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Israel Alamudun (07/07/2021)

Quality Control Supervisor

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials \cdots Contents of Certificates and Labels."

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