

# Product Specification

## Hydrochloric Acid, 12.0 Normal

Lot Number: SAMPLE

Product Number: 3780

Manufacture Date: N/A

Expiration Date: N/A

Name	CAS#	Grade
Water	7732-18-5	ACS
Hydrochloric Acid	7647-01-0	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless to slightly greenish-yellow liquid	N/A	
Assay (vs. Sodium Hydroxide/Phenolphthalein)	11.8-12.2 N at 20°C	N/A	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)
3780-32	1 L natural poly	24 months
3780-5PT	2.5 L safety-coated glass	24 months

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

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