

CERTIFICATE OF ANALYSIS

Product Name	HYDROCHLORIC ACID
Grade	Meets ACS Grade Monograph
Catalog #	284000ACS
Lot #	C21D21CAS0000HAG
Date of Manufacture:	04/30/21
Recommended Retest Date:	Two Years from Date of Manufacture

TEST	Specification	Result
Assay (by weight)	36.5 - 38.0%	37.2%
Color	10 max.	5
Residue after Ignition	5 ppm max.	4ppm
Bromide (Br)	0.005% max.	<0.005%
Sulfate (SO ₄)	1 ppm max.	<1ppm
Sulfite (SO ₃)	1 ppm max.	<1ppm
Free Chlorine (Cl)	1 ppm max.	<1ppm
Ammonium (NH ₄)	3 ppm max.	<3ppm
Arsenic (As)	0.01 ppm max.	<0.01ppm
Heavy Metals (as Pb)	1 ppm max.	<1ppm
Iron (Fe)	0.2 ppm max.	<0.2ppm

Certification and Compliance Statements

<p>This lot of Hydrochloric Acid complies with all of the current requirements listed in the American Chemical Society monograph. Certain test data have been supplied by third parties.</p>
<p>This product is not derived, nor does it come in contact with, any materials derived from bovine or other animal sources.</p>
<p>This product is for further commercial manufacturing, laboratory or research use, and may be used as an excipient or a process solvent for pharmaceutical purposes. It is not intended for use as an active ingredient in drug manufacturing nor as a medical device or disinfectant. Appropriate/legal use of this product is the responsibility of the user.</p>

Approved by: A. Paul, Quality Control Chemist

Date of Approval: 05/25/21