



**Aqua Solutions, Inc.**  
**6913 Highway 225**  
**Deer Park, TX, 77536**  
**281/479-2569**  
**Certificate of Analysis / QC Results**  
**Customer PO # :**

<b>Packaged Product:</b> 4355			
HYDROCHLORIC ACID 2.0 NORMAL			
Test	Target/UOM	Range	Result
<b>PREPARED TO FORMULATION ON FILE</b>	YES		YES
Sample ID			
Tested 12/28/23			
Tester JENC			
Recorded 12/28/23			
<b>SAMPLE COLLECTION &amp; HANDLING PER LAB040</b>	YES		YES
Sample ID			
Tested 12/28/23			
Tester JENC			
Recorded 12/28/23			
<b>DATE OF SAMPLING FOR TEST PURPOSES</b>	MM/DD/YYYY		12/28/2023
Sample ID			
Tested 12/28/23			
Tester JENC			
Recorded 12/28/23			
<b>AMBIENT TEMPERATURE DURING SAMPLING DEGC</b>	25.0	10.0 - 35.0	21.7
Sample ID			
Tested 12/28/23			
Tester JENC			
Recorded 12/28/23			
<b>DATE OF TESTING OF SAMPLE</b>	MM/DD/YYYY		12/28/2023
Sample ID			
Tested 12/28/23			
Tester JENC			
Recorded 12/28/23			
<b>AMBIENT TEST TEMPERATURE DEGC</b>	20.0	15.0 - 30.0	21.7
Sample ID			
Tested 12/28/23			
Tester JENC			
Recorded 12/28/23			
<b>Actual Normality</b>	2.0000	1.9990 - 2.0010	1.9992
	EQ/L		
Sample ID			
Tested 12/28/23			
Tester JENC			
Recorded 12/28/23			
<b>QCSP5: STANDARDIZATION OF AQUEOUS ACIDS</b>	YES		YES
	METHOD		
Sample ID			
Tested 12/28/23			
Tester JENC			
Recorded 12/28/23			



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<b>N.I.S.T. Traceable to SRM 723 THAM</b>	YES		YES
	YES		
Sample ID			
Tested	12/28/23		
Tester	JENC		
Recorded	12/28/23		
<b>CERTIFIED TOTAL ORGANIC CARBON (PPM)</b>	1.0	0.0 - 4.0	3.1
	PPM		
Sample ID			
Tested	12/28/23		
Tester	JENC		
Recorded	12/28/23		
<b>APPEARANCE AND COLOR</b>	CLEAR LIQUID APPEARANCE		PASS
Sample ID			
Tested	12/28/23		
Tester	JENC		
Recorded	12/28/23		
<b>INSTRUMENTS USED DURING PREPARATION</b>	INSTRUMENT		M25,T-246,BID-02259,PID-M91
Sample ID			
Tested	12/28/23		
Tester	JENC		
Recorded	12/28/23		
<b>Actual Color, APHA</b>	10	0 - 10	1
	COLOR		
Sample ID			
Tested	12/28/23		
Tester	JENC		
Recorded	12/28/23		
<b>Prepared with 36.5-38% ACS HCL</b>	YES		YES
	YES		
Sample ID			
Tested	12/28/23		
Tester	JENC		
Recorded	12/28/23		
<b>IDENTITY</b>	PASS		PASS
	PASS		
Sample ID			
Tested	12/28/23		
Tester	JENC		
Recorded	12/28/23		
<b>EXPIRATION DATE</b>	MM/DD/YY		12/30/25
	MM/DD/YYYY		
Sample ID			
Tested	12/28/23		
Tester	JENC		
Recorded	12/28/23		



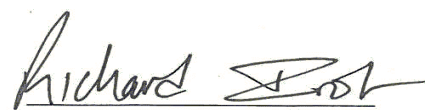
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<b>SHELF LIFE OF PRODUCT</b>	SHELF LIFE TIME	2 YEARS
Sample ID		
Tested 12/28/23		
Tester JENC		
Recorded 12/28/23		
<b>SPECIFIC GRAVITY</b>	1.035 SPEC GRAV	1.030 - 1.040 1.035
Sample ID		
Tested 12/28/23		
Tester JENC		
Recorded 12/28/23		
<b>Assay w/v HCL</b>	7.29 W/V%	6.12 - 7.48 7.29
Sample ID		
Tested 12/28/23		
Tester JENC		
Recorded 12/28/23		
<b>EXPIRATION DATE</b>	MM/DD/YYYY MM/DD/YYYY	12/30/2025
Sample ID		
Tested 12/28/23		
Tester JENC		
Recorded 12/28/23		
<b>Actual Density</b>	1.03295 GM/ML	1.03239 - 1.03351 1.03290
Sample ID		
Tested 12/28/23		
Tester JENC		
Recorded 12/28/23		
<b>Lot #</b>	3122140	
<b>Made</b>	12/28/23	

This is to certify that the product listed above has been prepared according to the agreed upon formulation. The solutions producer has a Quality Management System which governs each step of the manufacturing process to insure the production of a consistent product. Traceability from the producer's lot numbers to the original manufacturer's lot number is maintained. Certificates of Analysis for the raw materials used to prepare this product are available upon request.

The weights and/or volumes used to prepare this product are N.I.S.T. Traceable. All balances used in the preparation of product are calibrated daily against N.I.S.T. Traceable weights. The balances are maintained and serviced on a regular basis by an outside certified company. All volumetric glassware used is N.I.S.T. Traceable and certified as meeting Class A specifications.

Unless otherwise agreed to, all chemicals used in the preparation of this product are Reagent ACS grade.



**Quality Manager**