



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

<b>Packaged Product:</b> 4350			
HYDROCHLORIC ACID 1.0 NORMAL N.I.S.T. TRACEABLE			
Test	Target/UOM	Range	Result
<b>PREPARED TO FORMULATION ON FILE</b>	YES		YES
Sample ID			
Tested 11/09/23			
Tester MHUS			
Recorded 11/09/23			
<b>SAMPLE COLLECTION &amp; HANDLING PER LAB040</b>	YES		YES
Sample ID			
Tested 11/09/23			
Tester MHUS			
Recorded 11/09/23			
<b>Actual Normality</b>	1.0000 EQ/L	0.9995 - 1.0005	0.9996
Sample ID			
Tested 11/09/23			
Tester MHUS			
Recorded 11/09/23			
<b>+ Measurement Uncertainty</b>	0.0079 EQ/L	= 0.0079	0.0079
Sample ID			
Tested 11/09/23			
Tester MHUS			
Recorded 11/09/23			
<b>QCSP5: STANDARDIZATION OF AQUEOUS ACIDS</b>	YES METHOD		YES
Sample ID			
Tested 11/09/23			
Tester MHUS			
Recorded 11/09/23			
<b>Actual Density</b>	1.01599 GM/ML	1.01513 - 1.01684	1.01590
Sample ID			
Tested 11/09/23			
Tester MHUS			
Recorded 11/09/23			
<b>N.I.S.T. Traceable to SRM 723 THAM</b>	YES YES		YES
Sample ID			
Tested 11/09/23			
Tester MHUS			
Recorded 11/09/23			
<b>CERTIFIED TOTAL ORGANIC CARBON (PPM)</b>	1.0 PPM	0.0 - 3.0	0.9
Sample ID			
Tested 11/09/23			
Tester MHUS			
Recorded 11/09/23			



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<b>APPEARANCE AND COLOR</b>	CLEAR LIQUID APPEARANCE	PASS
Sample ID		
Tested	11/09/23	
Tester	MHUS	
Recorded	11/09/23	
<b>COLOR</b>	<10 PT-CO	<10
Sample ID		
Tested	11/09/23	
Tester	MHUS	
Recorded	11/09/23	
<b>INSTRUMENTS USED DURING PREPARATION</b>	INSTRUMENT	M55,M109,M44,GC,T222
Sample ID		
Tested	11/09/23	
Tester	MHUS	
Recorded	11/09/23	
<b>EXPIRATION DATE</b>	MM/DD/YY MM/DD/YYYY	11/30/25
Sample ID		
Tested	11/09/23	
Tester	MHUS	
Recorded	11/09/23	
<b>SHELF LIFE OF PRODUCT</b>	2 YEARS TIME	2 YEARS
Sample ID		
Tested	11/09/23	
Tester	MHUS	
Recorded	11/09/23	
<b>Lot #</b>	3110740	
<b>Made</b>	11/09/23	

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**