



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

<b>Packaged Product:</b> 4192			
HYDROCHLORIC ACID 0.5 NORMAL IN METHANOL			
Test	Target/UOM	Range	Result
<b>PREPARED TO FORMULATION ON FILE</b>	YES		YES
Sample ID	YES		
Tested 11/14/23			
Tester AFRE			
Recorded 11/14/23			
<b>SAMPLE COLLECTION &amp; HANDLING PER LAB040</b>	YES		YES
Sample ID	YES		
Tested 11/14/23			
Tester AFRE			
Recorded 11/14/23			
<b>DATE OF SAMPLING FOR TEST PURPOSES</b>	MM/DD/YYYY		11/13/2023
Sample ID	MM/DD/YYYY		
Tested 11/14/23			
Tester AFRE			
Recorded 11/14/23			
<b>AMBIENT TEMPERATURE DURING SAMPLING DEGC</b>	25.0	10.0 - 35.0	20.0
Sample ID	DEG C		
Tested 11/14/23			
Tester AFRE			
Recorded 11/14/23			
<b>DATE OF TESTING OF SAMPLE</b>	MM/DD/YYYY		11/14/2023
Sample ID	MM/DD/YYYY		
Tested 11/14/23			
Tester AFRE			
Recorded 11/14/23			
<b>AMBIENT TEST TEMPERATURE DEG C</b>	20.0	15.0 - 30.0	20.0
Sample ID	DEG C		
Tested 11/14/23			
Tester AFRE			
Recorded 11/14/23			
<b>Actual Normality</b>	0.5000	0.4991 - 0.5009	0.5007
Sample ID	EQ/L		
Tested 11/14/23			
Tester AFRE			
Recorded 11/14/23			
<b>QCSP5: STANDARDIZATION OF AQUEOUS ACIDS</b>	YES		YES
Sample ID	METHOD		
Tested 11/14/23			
Tester AFRE			
Recorded 11/14/23			



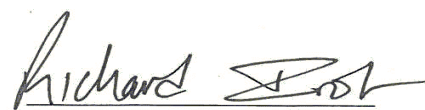
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<b>N.I.S.T. Traceable to SRM 723 THAM</b>	YES YES	YES
Sample ID		
Tested	11/14/23	
Tester	AFRE	
Recorded	11/14/23	
<b>APPEARANCE AND COLOR</b>	CLEAR LIQUID APPEARANCE	PASS
Sample ID		
Tested	11/14/23	
Tester	AFRE	
Recorded	11/14/23	
<b>INSTRUMENTS USED DURING PREPARATION</b>	INSTRUMENT	GC,VF12-98,BID-00488,PID-M 91
Sample ID		
Tested	11/14/23	
Tester	AFRE	
Recorded	11/14/23	
<b>Actual Density</b>	0.81619 GM/ML	0.81429 - 0.81809 0.81632
Sample ID		
Tested	11/14/23	
Tester	AFRE	
Recorded	11/14/23	
<b>EXPIRATION DATE</b>	MM/DD/YY MM/DD/YYYY	05/30/24
Sample ID		
Tested	11/14/23	
Tester	AFRE	
Recorded	11/14/23	
<b>Lot #</b>	3110947	
<b>Made</b>	11/10/23	

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**