

**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</b>	YES		YES
<b>FILE</b>	YES		
Sample ID			
Tested 05/02/23			
Tester JENC			
Recorded 05/02/23			
<b>SAMPLE COLLECTION &amp; HANDLING</b>	YES		YES
<b>PER LAB040</b>	YES		
Sample ID			
Tested 05/02/23			
Tester JENC			
Recorded 05/02/23			
<b>DATE OF SAMPLING FOR TEST</b>	MM/DD/YYYY		05/02/23
<b>PURPOSES</b>	MM/DD/YYYY		
Sample ID			
Tested 05/02/23			
Tester JENC			
Recorded 05/02/23			
<b>AMBIENT TEMPERATURE DURING</b>	25.0	10.0 - 35.0	21.2
<b>SAMPLING DEGC</b>	DEG C		
Sample ID			
Tested 05/02/23			
Tester JENC			
Recorded 05/02/23			
<b>DATE OF TESTING OF SAMPLE</b>	MM/DD/YYYY		05/02/23
	MM/DD/YYYY		
Sample ID			
Tested 05/02/23			
Tester JENC			
Recorded 05/02/23			
<b>AMBIENT TEST TEMPERATURE</b>	20.0	15.0 - 30.0	21.2
<b>DEG C</b>	DEG C		
Sample ID			
Tested 05/02/23			
Tester JENC			
Recorded 05/02/23			
<b>Actual Normality</b>	0.5000	0.4991 - 0.5009	0.5005
	EQ/L		
Sample ID			
Tested 05/02/23			
Tester JENC			
Recorded 05/02/23			
<b>QCSP5: STANDARDIZATION OF</b>	YES		YES
<b>AQUEOUS ACIDS</b>	METHOD		
Sample ID			
Tested 05/02/23			
Tester JENC			
Recorded 05/02/23			

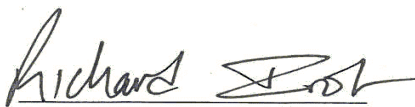
**Aqua Solutions, Inc.**  
**6913 Highway 225**  
**Deer Park, TX, 77536**  
**281/479-2569**  
**Certificate of Analysis / QC Results**  
**Customer PO # :**

<b>N.I.S.T. Traceable to SRM 723 THAM</b>	YES	YES
Sample ID	YES	
Tested 05/02/23		
Tester JENC		
Recorded 05/02/23		
<b>APPEARANCE AND COLOR</b>	CLEAR LIQUID	PASS
Sample ID	APPEARANCE	
Tested 05/02/23		
Tester JENC		
Recorded 05/02/23		
<b>INSTRUMENTS USED DURING PREPARATION</b>	INSTRUMENT	GC,T-158,M55,BID02253,PIDM 91
Sample ID		
Tested 05/02/23		
Tester JENC		
Recorded 05/02/23		
<b>Actual Density</b>	0.81619	0.81508 - 0.81730
Sample ID	GM/ML	0.81665
Tested 05/02/23		
Tester JENC		
Recorded 05/02/23		
<b>EXPIRATION DATE</b>	MM/DD/YY	11/30/23
Sample ID	MM/DD/YYYY	
Tested 05/02/23		
Tester JENC		
Recorded 05/02/23		
<b>Lot #</b> 3041463		
<b>Made</b> 05/02/23		

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**