



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

<b>Packaged Product:</b> 4131			
HYDROCHLORIC ACID 0.1 NORMAL IN IPA NIST TRACEABLE SOLUTION			
Test	Target/UOM	Range	Result
<b>PREPARED TO FORMULATION ON FILE</b>	YES		YES
Sample ID	YES		
Tested 06/09/22			
Tester JENC			
Recorded 06/09/22			
<b>SAMPLE COLLECTION &amp; HANDLING PER LAB040</b>	YES		YES
Sample ID	YES		
Tested 06/09/22			
Tester JENC			
Recorded 06/09/22			
<b>DATE OF SAMPLING FOR TEST PURPOSES</b>	MM/DD/YYYY		06/09/22
Sample ID	MM/DD/YYYY		
Tested 06/09/22			
Tester JENC			
Recorded 06/09/22			
<b>AMBIENT TEMPERATURE DURING SAMPLING DEGC</b>	25.0	10.0 - 35.0	21.0
Sample ID	DEG C		
Tested 06/09/22			
Tester JENC			
Recorded 06/09/22			
<b>DATE OF TESTING OF SAMPLE</b>	MM/DD/YYYY		06/09/22
Sample ID	MM/DD/YYYY		
Tested 06/09/22			
Tester JENC			
Recorded 06/09/22			
<b>AMBIENT TEST TEMPERATURE DEGC</b>	20.0	15.0 - 30.0	21.0
Sample ID	DEG C		
Tested 06/09/22			
Tester JENC			
Recorded 06/09/22			
<b>Actual Normality</b>	0.1000	0.0995 - 0.1005	0.1000
Sample ID	EQ/L		
Tested 06/09/22			
Tester JENC			
Recorded 06/09/22			
<b>QCSP5: STANDARDIZATION OF AQUEOUS ACIDS</b>	YES		YES
Sample ID	METHOD		
Tested 06/09/22			
Tester JENC			
Recorded 06/09/22			



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<b>N.I.S.T. Traceable to SRM 723</b>	YES YES	YES
Sample ID		
Tested	06/09/22	
Tester	JENC	
Recorded	06/09/22	
<b>APPEARANCE AND COLOR</b>	CLEAR LIQUID APPEARANCE	PASS
Sample ID		
Tested	06/09/22	
Tester	JENC	
Recorded	06/09/22	
<b>Actual Density</b>	0.79100 GM/ML	0.78997 - 0.79203 0.79089
Sample ID		
Tested	06/09/22	
Tester	JENC	
Recorded	06/09/22	
<b>INSTRUMENTS USED DURING PREPARATION</b>	INSTRUMENT	GC,T19,M55,M91,BID00280,TI DS82796
Sample ID		
Tested	06/09/22	
Tester	JENC	
Recorded	06/09/22	
<b>EXPIRATION DATE</b>	MM/DD/YY MM/DD/YYYY	12/30/22
Sample ID		
Tested	06/09/22	
Tester	JENC	
Recorded	06/09/22	
<b>SHELF LIFE OF PRODUCT</b>	6 MONTHS TIME	6 MONTHS
Sample ID		
Tested	06/09/22	
Tester	JENC	
Recorded	06/09/22	
<b>Lot #</b>	2052609	
<b>Made</b>	06/09/22	

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.



Aqua Solutions, Inc.  
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P.O. Box 70  
Deer Park, TX 77536  
Website: [www.aquasolutions.org](http://www.aquasolutions.org)

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Date: 06/09/22 at 9:30 AM

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

**Quality Manager**