



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

Packaged Product: 4190			
HYDROCHLORIC ACID 0.5 NORMAL NIST TRACEABLE SOLUTION			
Test	Target/UOM	Range	Result
PREPARED TO FORMULATION ON	YES		YES
FILE	YES		
Sample ID			
Tested 09/18/23			
Tester MHUS			
Recorded 09/18/23			
Actual Normality	0.5000	0.4995 - 0.5005	0.5000
	EQ/L		
Sample ID			
Tested 09/18/23			
Tester MHUS			
Recorded 09/18/23			
QCSP5: STANDARDIZATION OF	YES		YES
AQUEOUS ACIDS	METHOD		
Sample ID			
Tested 09/18/23			
Tester MHUS			
Recorded 09/18/23			
N.I.S.T. Traceable to SRM 723 THAM	YES		YES
	YES		
Sample ID			
Tested 09/18/23			
Tester MHUS			
Recorded 09/18/23			
SAMPLE COLLECTION & HANDLING	YES		YES
PER LAB040	YES		
Sample ID			
Tested 09/18/23			
Tester MHUS			
Recorded 09/18/23			
DATE OF SAMPLING FOR TEST	MM/DD/YYYY		09/15/2023
PURPOSES	MM/DD/YYYY		
Sample ID			
Tested 09/18/23			
Tester MHUS			
Recorded 09/18/23			
AMBIENT TEMPERATURE DURING	25.0	10.0 - 35.0	27.0
SAMPLING DEGC	DEG C		
Sample ID			
Tested 09/18/23			
Tester MHUS			
Recorded 09/18/23			
DATE OF TESTING OF SAMPLE	MM/DD/YYYY		09/15/2023
	MM/DD/YYYY		
Sample ID			
Tested 09/18/23			
Tester MHUS			
Recorded 09/18/23			



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AMBIENT TEST TEMPERATURE	20.0	15.0 - 30.0	22.0
DEG C	DEG C		
Sample ID			
Tested	09/18/23		
Tester	MHUS		
Recorded	09/18/23		
APPEARANCE AND COLOR	CLEAR LIQUID		PASS
	APPEARANCE		
Sample ID			
Tested	09/18/23		
Tester	MHUS		
Recorded	09/18/23		
INSTRUMENTS USED DURING PREPARATION	INSTRUMENT		T192,T532,GC,TIV,M55,M91,BI D3902,T
Sample ID			
Tested	09/18/23		
Tester	MHUS		
Recorded	09/18/23		
EXPIRATION DATE	MM/DD/YY		09/30/25
	MM/DD/YYYY		
Sample ID			
Tested	09/18/23		
Tester	MHUS		
Recorded	09/18/23		
SHELF LIFE OF PRODUCT	2 YEARS		2 YEARS
	TIME		
Sample ID			
Tested	09/18/23		
Tester	MHUS		
Recorded	09/18/23		
Lot #	3091225		
Made	09/18/23		

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