



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
Actual Normality	0.5000	0.4995 - 0.5005	0.5002
	EQ/L		
Sample ID			
Tested	06/07/23		
Tester	MHUS		
Recorded	06/07/23		
QCSP5: STANDARDIZATION OF AQUEOUS ACIDS	YES		YES
	METHOD		
Sample ID			
Tested	06/07/23		
Tester	MHUS		
Recorded	06/07/23		
N.I.S.T. Traceable to SRM 723 THAM	YES		YES
	YES		
Sample ID			
Tested	06/07/23		
Tester	MHUS		
Recorded	06/07/23		
PREPARED TO FORMULATION ON FILE	YES		YES
	YES		
Sample ID			
Tested	06/07/23		
Tester	MHUS		
Recorded	06/07/23		
SAMPLE COLLECTION & HANDLING PER LAB040	YES		YES
	YES		
Sample ID			
Tested	06/07/23		
Tester	MHUS		
Recorded	06/07/23		
DATE OF SAMPLING FOR TEST PURPOSES	MM/DD/YYYY		06/07/23
	MM/DD/YYYY		
Sample ID			
Tested	06/07/23		
Tester	MHUS		
Recorded	06/07/23		
AMBIENT TEMPERATURE DURING SAMPLING DEGC	25.0	10.0 - 35.0	23.3
	DEG C		
Sample ID			
Tested	06/07/23		
Tester	MHUS		
Recorded	06/07/23		
DATE OF TESTING OF SAMPLE	MM/DD/YYYY		06/07/23
	MM/DD/YYYY		
Sample ID			
Tested	06/07/23		
Tester	MHUS		
Recorded	06/07/23		



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AMBIENT TEST TEMPERATURE	20.0	15.0 - 30.0	23.3
DEG C	DEG C		
Sample ID			
Tested	06/07/23		
Tester	MHUS		
Recorded	06/07/23		
APPEARANCE AND COLOR	CLEAR LIQUID		PASS
	APPEARANCE		
Sample ID			
Tested	06/07/23		
Tester	MHUS		
Recorded	06/07/23		
INSTRUMENTS USED DURING PREPARATION	INSTRUMENT		M55,T2,VF12-93,GC,M91,BID3 902
Sample ID			
Tested	06/07/23		
Tester	MHUS		
Recorded	06/07/23		
EXPIRATION DATE	MM/DD/YY		06/30/25
	MM/DD/YYYY		
Sample ID			
Tested	06/07/23		
Tester	MHUS		
Recorded	06/07/23		
Actual Density	1.00719	1.00714 - 1.00723	1.00721
	GM/ML		
Sample ID			
Tested	06/07/23		
Tester	MHUS		
Recorded	06/07/23		
SHELF LIFE OF PRODUCT	2 YEARS		2 YEARS
	TIME		
Sample ID			
Tested	06/07/23		
Tester	MHUS		
Recorded	06/07/23		
Lot #	3060209		
Made	06/07/23		

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.



Aqua Solutions, Inc.
Ph: 281-479-2569
Fax: 281-479-2790
P.O. Box 70
Deer Park, TX 77536
Website: www.aquasolutions.org

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Date: 06/07/23 at 7:50 AM

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

Quality Manager