



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

Test	Target/UOM	Range	Result
<b>Packaged Product:</b> VUL442F			
	NITRIC ACID 2 NORMAL (MOLAR) SOLUTION		
<b>PREPARED TO FORMULATION ON FILE</b>	YES		YES
Sample ID			
Tested 12/10/24			
Tester JRIO			
Recorded 12/10/24			
<b>SAMPLE COLLECTION &amp; HANDLING PER LAB040</b>	YES		YES
Sample ID			
Tested 12/10/24			
Tester JRIO			
Recorded 12/10/24			
<b>DATE OF SAMPLING FOR TEST PURPOSES</b>	MM/DD/YYYY		12/10/2024
Sample ID			
Tested 12/10/24			
Tester JRIO			
Recorded 12/10/24			
<b>AMBIENT TEMPERATURE DURING SAMPLING DEGC</b>	25.0 DEG C	10.0 - 35.0	20.0
Sample ID			
Tested 12/10/24			
Tester JRIO			
Recorded 12/10/24			
<b>DATE OF TESTING OF SAMPLE</b>	MM/DD/YYYY MM/DD/YYYY		12/10/2024
Sample ID			
Tested 12/10/24			
Tester JRIO			
Recorded 12/10/24			
<b>AMBIENT TEST TEMPERATURE DEGC</b>	20.0 DEG C	15.0 - 30.0	20.0
Sample ID			
Tested 12/10/24			
Tester JRIO			
Recorded 12/10/24			
<b>NORMALITY TO 4 DEC PLACES</b>	2.0000 EQUIV/LITER	1.9990 - 2.0010	1.9995
Sample ID			
Tested 12/10/24			
Tester JRIO			
Recorded 12/10/24			
<b>N.I.S.T. Traceable to SRM 723 THAM</b>	YES YES		YES
Sample ID			
Tested 12/10/24			
Tester JRIO			
Recorded 12/10/24			



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<b>QCSP5: STANDARDIZATION OF AQUEOUS ACIDS</b>	YES METHOD	YES
Sample ID		
Tested 12/10/24		
Tester JRIO		
Recorded 12/10/24		
<b>APPEARANCE AND COLOR</b>	CLEAR LIQUID APPEARANCE	PASS
Sample ID		
Tested 12/10/24		
Tester JRIO		
Recorded 12/10/24		
<b>INSTRUMENTS USED DURING PREPARATION</b>	INSTRUMENT	M113,T19
Sample ID		
Tested 12/10/24		
Tester JRIO		
Recorded 12/10/24		
<b>Actual Density</b>	1.06495 G/ML	1.06470 - 1.06519 1.06512
Sample ID		
Tested 12/10/24		
Tester JRIO		
Recorded 12/10/24		
<b>EXPIRATION DATE</b>	MM/DD/YYYY MM/DD/YYYY	12/30/2026
Sample ID		
Tested 12/10/24		
Tester JRIO		
Recorded 12/10/24		
<b>Lot #</b> 4112062		
<b>Made</b> 12/10/24		

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**