



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

<b>Packaged Product:</b> VUL452F			
Gallium and Yttrium 10 ug/ml in 2% v/v HCL Std.			
Test	Target/UOM	Range	Result
<b>PREPARED TO FORMULATION ON FILE</b>	YES		YES
Sample ID			
Tested 01/15/25			
Tester MMAT			
Recorded 01/15/25			
<b>CALCULATED UG/ML GALLIUM (GA)</b>	10.00	9.95 - 10.05	10.00
	UG/ML		
Sample ID			
Tested 01/15/25			
Tester MMAT			
Recorded 01/15/25			
<b>CALCULATED UG/ML YTTRIUM (Y)</b>	10.00	9.95 - 10.05	10.00
	UG/ML		
Sample ID			
Tested 01/15/25			
Tester MMAT			
Recorded 01/15/25			
<b>APPEARANCE AND COLOR</b>	CLEAR TO PALE YELLOW		PASS
	LIQUID		
	APPEARANCE		
Sample ID			
Tested 01/15/25			
Tester MMAT			
Recorded 01/15/25			
<b>Actual Density</b>	1.00129	0.99804 - 1.00453	1.00263
	G/ML		
Sample ID			
Tested 01/15/25			
Tester MMAT			
Recorded 01/15/25			
<b>INSTRUMENTS USED DURING PREPARATION</b>	INSTRUMENT		P119,GC,VF4-N31
Sample ID			
Tested 01/15/25			
Tester MMAT			
Recorded 01/15/25			
<b>EXPIRATION DATE</b>	MM/DD/YYYY		10/30/2025
	MM/DD/YYYY		
Sample ID			
Tested 01/15/25			
Tester MMAT			
Recorded 01/15/25			
<b>Lot #</b>	5011568		
<b>Made</b>	01/15/25		



Aqua Solutions, Inc.  
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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**