

## Certificate of Analysis

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Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System  
 Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	BP381	Quality Test / Release Date	06/21/2023
Lot Number	232991		
Description	GLYCINE		
Country of Origin	United States	Suggested Retest Date	Jun/2028
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals or powder.
ABSORBANCE AT 280NM	ABSORBANCE UNITS	<= 0.1	0.01
AMMONIUM	%	<= 0.02	<0.02
ARSENIC (As)	ppm	<= 1	<1.0
ASSAY	%	Inclusive Between 98.5 - 101.0	100.3
CHLORIDE	%	<= 0.003	<0.003
COLOR OF A 10% SOLUTION	APHA	<= 10	<10
CONDUCTIVITY OF SOLUTION	MICROMHO/CM	<= 25	9.9
HEAVY METALS (as Pb)	ppm	<= 10	<10
IDENTIFICATION	PASS/FAIL	IN PASS TEST	PASS TEST
IGNITION RESIDUE	%	<= 0.10	0.02
IRON (Fe)	ppm	<= 7	<7
LOSS ON DRYING @ 105 C	%	<= 0.20	0.110
OTHER AMINO ACIDS	PASS/FAIL	IN PASS TEST	PASS TEST



Harout Sahagian - Quality Control Supervisor - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.

If there are any questions with this certificate, please call at (800) 227-6701.

\*Based on suggested storage condition.