

## Certificate of Analysis

1 Reagent Lane	
Fair Lawn, NJ 07410	
201.796.7100 tel	Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System
201.796.1329 fax	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	177	Quality Test / Release Date	11/06/2023	
Lot Number	233808			
Description	FERROUS AMMONIUM SULFATE, HEXAHYDRATE, CERTIFIED A.C.S.			
Country of Origin	United States	Suggested Retest Date	Nov/2028	
Chemical Origin	Inorganic Synthetic Non Animal			
BSE/TSE Comment	BSE/TSE free.			

N/A					
Result Name	Units	Specifications	Test Value		
APPEARANCE		REPORT	Pale blue-green solid		
ASSAY	%	Inclusive Between 98.5 - 101.5	99.6		
CALCIUM (Ca)	%	<= 0.005	<0.001		
COPPER (Cu)	%	<= 0.003	<0.001		
FERRIC IRON (FE+3)	%	<= 0.01	0.01		
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST		
INSOLUBLE MATTER	%	<= 0.01	<0.01		
MAGNESIUM (Mg)	%	<= 0.002	<0.001		
MANGANESE (Mn)	%	<= 0.01	<0.01		
PH 5% SOLUTION @ 25 DEG C		Inclusive Between 3.0 - 5.0	3.6		
PHOSPHATE (PO4)	%	<= 0.003	<0.003		
POTASSIUM (K)	%	<= 0.002	0.001		
SODIUM (Na)	%	<= 0.02	<0.01		
ZINC (Zn)	%	<= 0.003	<0.0010		

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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.