

## Certificate of Analysis

1 Reagent Lane  
 Fair Lawn, NJ 07410  
 201.796.7100 tel  
 201.796.1329 fax

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	M35	Quality Test / Release Date	01/19/2023
Lot Number	225516		
Description	MAGNESIUM CHLORIDE HEXAHYDRATE USP/FCC		
Country of Origin	Germany	Suggested Retest Date	Oct/2025
Chemical Origin	Inorganic-non animal		
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.		

FCC Grade			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless crystals very hygroscopic.
AMMONIUM	%	<= 0.005	<0.005
ASSAY	%	Inclusive Between 99.0 - 105.0	100.2
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
LEAD (Pb)	MG/KG	<= 4	<4
SULFATE	%	<= 0.03	<0.030

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless crystals very hygroscopic.
LIMIT OF CALCIUM	%	<= 0.01	<0.01

USP Grade			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless crystals very hygroscopic.
ASSAY	%	Inclusive Between 98.0 - 101.0	100.2
BARIUM	PASS/FAIL	= PASS TEST	PASS TEST
ENDOTOXINS	EU/Mg	= REPORT	<2.5
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE SUBSTANCES	%	<= 0.005	<0.005
POTASSIUM	PASS/FAIL	= PASS TEST	PASS TEST
RESIDUAL SOLVENTS	PASS/FAIL	= PASS TEST	PASS TEST

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.

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SULFATE (SO <sub>4</sub> )	%	<= 0.005	<0.005
pH OF A 5% SOLUTION		Inclusive Between 4.5 - 7.0	5.6

**Residual Solvents**

Based upon knowledge of our process and raw materials, no solvents - Class 1, Class 2 or Class 3 solvents are used in the manufacture or purification of this product



Harout Sahagian - Quality Control Supervisor - Fair Lawn

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