

## CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by Intertek. Certificate Number. 2317548

Catalogue Number	19685
Lot Number	A0482837
Description	Magnesium sulfate,99%,extra pure,dried, contains 3 to 4 moles of water
CAS Number	22189-08-8
Quality Test/Release Date	28/Apr/2026
Suggested retest date	28/Apr/2029
Country of Origin	GERMANY
Declaration of Origin	Mineral

Result Name	Units	Specifications	Test Value
Appearance (Color)		White	White
Appearance (Form)		Crystalline powder	Crystalline powder
Titration Complexometric	%	>=98.5 (On dried substance)	99.5 (On dried substance)
Heavy metals (as Pb)	ppm	==<20	==<0.4
Loss on drying	%	26 to 32 (400 to 500 °C)	29.6 (400 to 500 °C)
Chloride (Cl)	ppm	==<400	==<400
Arsenic (As)	ppm	==<2	==<2
Iron (Fe)	ppm	==<10	==<10
Acidity/alkalinity		Passes test	Passes test
Packed density	g/l		827
Sulfates			Positive
Magnesium (Mg)			Positive

Geert Torfs  
Supervisor, QC

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third-party data or information associated with the product. Products are for research and development use only. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

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