

CERTIFICATE OF ANALYSIS

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

Catalogue Number	M113
Lot Number	252279
Description	MANGANESE SULFATE MONOHYDRATE, A.C.S.
CAS Number	10034-96-5
Quality Test/Release Date	02/May/2025
Suggested retest date	31/Mar/2026
Country of Origin	India
Declaration of Origin	Synthetic

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	fine, pale-pink powder
ASSAY	%	Inclusive Between 98.0 - 101.0	99.0
CALCIUM	%	<= 0.005	<0.005
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Pb)	%	<= 0.002	<0.002
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	0.007
IRON (Fe)	%	<= 0.002	<0.002
LOSS ON IGNITION	%	Inclusive Between 10 - 12	11.3
MAGNESIUM	%	<= 0.005	<0.005
NICKEL (Ni)	%	<= 0.02	<0.02
POTASSIUM (K)	%	<= 0.01	<0.01
SODIUM (Na)	%	<= 0.05	<0.05
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
ZINC (Zn)	%	<= 0.005	<0.005

Harout Sahagian
QC Manager

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 use or further manufacturing. 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.