



# Certificate of Analysis

Item Number	Product Description	Lot Number
CP-B1640D	Manganese Chloride Tetrahydrate USP, 1 KG	1216-1891
Formula	Molecular Weight	Cas Number
MnCl <sub>2</sub> •4H <sub>2</sub> O	197.91	13446-34-9

QC TEST/RELEASE DATE: 12/19/2022

SUGGESTED RETEST DATE: 03/02/2024

S.No	Test	Unit	Specifications	Test Value
1	Appearance		Light pink crystals	passed
2	Assay	%	98.0 - 101.0	99.65
3	Identification A		Gives reaction for Manganese	passed
4	Identification B		Gives reaction for Chloride	passed
5	Solubility (10%)		Clear, light pink	passed
6	pH (5%)		3.5 - 6.0	5.21
7	Moisture (LOD)	%	36.0 - 38.5	36.24
8	Insoluble Matter	%	≤ 0.005	0.003
9	Sulfate	%	≤ 0.005	< 0.005
10	Substances Not Precipitated By (NH <sub>3</sub> ) <sub>2</sub> S	%	≤ 0.2	0.12
11	Iron	ppm	≤ 5	< 5
12	Zinc		No turbidity within 5 minutes	passed
13	Residual Solvents		Water is the only solvent used during manufacturing.	passed
14	BSE/TSE Free		BSE/TSE Free	passed
15	Country of Origin		India	passed
16	Grade		USP	passed

This is to certify that samples of the lot number above were tested and found to comply with the stated specifications. Some or all data have been provided by vendors/third parties. ChemPure Brand Chemicals expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular use or purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in research and further manufacturing only. **NOT FOR USE IN FOOD, DRUG OR MEDICAL DEVICE MANUFACTURING.** Persons using this information should make their own determination regarding its suitability for their particular use. This is an electronically generated document and does not require signatures.