

## Certificate of Analysis

Date of Testing: 2023-03-10 17:35:57  
Date of Next Testing: 2024-03-09 17:35:57  
Product Name: **Manganese chloride**  
CAS Number: 7773-01-5  
Specifications & Purity:  $\geq 99\%$  trace metals basis  
Lot #: C2303900  
SKU #: **M141247**  
**Analysis:** **186351**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Insoluble matter in H <sub>2</sub> O	0-0.005 (%)	0.00 %
Total Metallic Impuritie	0-10000 (ppm)	2279.00 ppm
Water by Karl Fischer	0-3 (%)	0.48 %
Purity(Based On Trace Metals Analysis)	99-100 (%)	99.77 %
Appearance (M141247)	Pink Crystals or Powder and/or Chunks	Pink Crystals or Powder and/or Chunks
ICP:Confirms Manganese Component	Confirmed	Confirmed
X-Ray Diffraction	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager