

## Certificate of Analysis

Date of Testing: 2023-02-10 09:31:30  
Date of Next Testing: 2027-02-09 09:31:30  
Product Name: **Manganese dioxide**  
CAS Number: 1313-13-9  
Specifications & Purity: 99% metals basis  
Lot #: B23031353  
SKU #: **M118110**  
**Analysis: 177376**

Parameter	Limit Values	Result
Total Metallic Impurities	0-10000 (ppm)	1949.00 ppm
Titration by KMNO4 (% Mn)	62.6-65.1 (%)	62.89 %
Purity(Based On Trace Metals Analysis)	99-100 (%)	99.91 %
Appearance (M118110)	Grey to Black Powder and/or Chunks	Grey to Black Powder and/or Chunks
X-Ray Diffraction	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager