

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2022-09-01 21:38:50  
Date of Next Testing: 2026-08-31 21:38:50  
Product Name: **Manganese dioxide**  
CAS Number: 1313-13-9  
Specifications & Purity: 98% metals basis  
Lot #: H2231634  
SKU #: **M118109**  
Analysis: **130645**

Parameter	Limit Values	Result
Purity(Based On Trace Metals Analysis)	98-100 (%)	99.94%
Titration by KMNO4 (% Mn)	62-100 (%)	63.58%
Total Metallic Impuritie	0-20000 (ppb)	593.00 ppb
Appearance (M118109)	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