

## Certificate of Analysis

Date of Testing: 2025-02-14 16:35:22

Date of Next Testing: 2029-02-13 16:35:22

Product Name: **Manganese dioxide**

CAS Number: 1313-13-9

Specifications & Purity:  $\geq 98\%$  metals basis

Lot #: A2522059

SKU #: **M118109**

Version: **0**

Analysis #: **473236**

| Parameter                              | Limit Values                       | Result                             |
|----------------------------------------|------------------------------------|------------------------------------|
| Purity(Based On Trace Metals Analysis) | 98-100 (%)                         | 99.99 %                            |
| Titration by KMNO4 (% Mn)              | 62-100 (%)                         | 65.04 %                            |
| Total Metallic Impuritie               | 0-20000 (ppb)                      | 76.00 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