

## Certificate of Analysis

Date of Testing: 2022-09-01 21:33:01  
Date of Next Testing: 2026-08-31 21:33:01  
Product Name: **Manganese dioxide**  
CAS Number: 1313-13-9  
Specifications & Purity: 99% metals basis  
Lot #: H2231630  
SKU #: **M118110**  
Analysis: **121848**

| Parameter                              | Limit Values                       | Result                             |
|--|------------------------------------|------------------------------------|
| Total Metallic Impurities              | 0-10000 (ppm)                      | 593.00 ppm                         |
| Titration by KMNO <sub>4</sub> (% Mn)  | 62.6-65.1 (%)                      | 63.58 %                            |
| Purity(Based On Trace Metals Analysis) | 99-100 (%)                         | 99.94 %                            |
| 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              |



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