

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2025-04-19 10:54:26  
Date of Next Testing: 2028-04-18 10:54:26  
Product Name: **Lithium manganese(III,IV) oxide**  
CAS Number: 12057-17-9  
Specifications & Purity: electrochemical grade  
Lot #: D2507508  
SKU #: **L476335**  
Version: **1**  
Analysis #: **487764**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Titration by KMNO4 (% Mn)	59.8-61.7 (%)	59.90%
Trace Metal Analysis	0-20000 (ppm)	859.00 ppm
Particle size	0-5 ( $\mu\text{m}$ )	4.00000 $\mu\text{m}$
X-Ray Diffraction	Conforms to Structure	Conforms to Structure
Appearance(L476335)	Very Dark Blue to Black Powder	Very Dark Blue to Black Powder



John Su  
QA & QC Manager