

Product Name:

3050 Spruce Street, Saint Louis, MO 63103, USA Website: www.sigmaaldrich.com Email USA: techserv@sial.com Outside USA: eurtechserv@sial.com

Certificate of Analysis

MnCO₃

Manganese(II) carbonate - ≥99.9% trace metals basis

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| Product Number: | 377449 | |
|-----------------------|--------------|--|
| Batch Number: | MKCW1736 | |
| Brand: | ALDRICH | |
| CAS Number: | 598-62-9 | |
| MDL Number: | MFCD0001111 | |
| Formula: | CMnO3 | |
| Formula Weight: | 114.95 g/mol | |
| Quality Release Date: | 25 JUN 2024 | |

| Test | Specification | Result |
|--|-------------------------------|--------------------|
| Appearance (Color) | Faint Beige to Beige to Brown | Light Brown |
| Appearance (Form) | Powder | Powder |
| X-Ray Diffraction | Conforms to Structure | Conforms |
| Complexometric EDTA % Manganese | 46.1 - 49.5 % | 46.1 % |
| Purity > = 99.9% Based on Trace Metals Analysis | Meets Requirements | Meets Requirements |
| Trace Metal Analysis | <pre>1000.0 ppm</pre> | 805.5 ppm |
| Aluminum (Al) | | 197.6 ppm |
| Barium (Ba) | | 10.3 ppm |
| Calcium (Ca) | | 398.7 ppm |
| Cadmium (Cd) | | 0.4 ppm |
| Cobalt (Co) | | 34.8 ppm |
| Chromium (Cr) | | 12.7 ppm |
| Iron (Fe) | | 68.2 ppm |
| Iridium (Ir) | | 5.6 ppm |
| Magnesium (Mg) | | 9.7 ppm |
| Nickel (Ni) | | 13.2 ppm |
| Lead (Pb) | | 22.7 ppm |
| Palladium (Pd) | | 5.1 ppm |
| Platinum (Pt) | | 8.8 ppm |
| Antimony (Sb) | | 8.4 ppm |
| Strontium (Sr) | | 3.5 ppm |
| Titanium (Ti) | | 1.0 ppm |

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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| Vanadium (V) | | 1.2 ppm |
| Zinc (Zn) | | 3.7 ppm |

Larry Coers, Director Quality Control Milwaukee, WI US

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