



>>Entry Name: Lithium manganese(IV) oxide (Li<sub>2</sub>MnO<sub>3</sub>), 9CI

CAS Registry Number: 12163-00-7

Li<sub>2</sub>MnO<sub>3</sub>

Molecular Formula: Li<sub>2</sub>MnO<sub>3</sub>

Molecular Weight: 116.818

Accurate Mass: 116.954798

Percentage Composition: Li 11.88%; Mn 47.03%; O 41.09%

Source/Synthesis: Synth. from Li<sub>2</sub>CO<sub>3</sub> and MnO<sub>2</sub> in oxygen at 900-1100°

Physical Description: Red-brown powder

Solubility: Insol. H<sub>2</sub>O, but slowly hydrol.

Other Data:  $\mu_{\text{eff}} = 3.77\mu_{\text{B}}$

Aldrich: 44272-0

>>Variant:  $\alpha$ -form

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Accurate Mass: 116.954798

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>>Variant:  $\beta$ -form

Molecular Formula: Li<sub>2</sub>MnO<sub>3</sub>

Molecular Weight: 116.818

Accurate Mass: 116.954798

Percentage Composition: Li 11.88%; Mn 47.03%; O 41.09%

#### References:

Schmier, A. *et al.*, *Naturwissenschaften*, 1965, **52**, 392, (*synth, props*)

Jansen, M. *et al.*, *Z. Anorg. Allg. Chem.*, 1973, **397**, 279, (*struct, magnetism*)

*Gmelin Handbook Inorg. Chem., Syst. No. 56*, 1975, **C2**, 96, (*rev, bibl*)