



>>Entry Name: Magnesium titanium oxide (MgTiO₃), 9CI

Synonym(s): Titanate (TiO₃²⁽⁻⁾), magnesium salt, 12CI. Magnesium titanate

CAS Registry Number: 12032-30-3

MgTiO₃

Molecular Formula: MgO₃Ti

Molecular Weight: 120.183

Accurate Mass: 119.917734

Percentage Composition: Mg 20.22%; O 39.94%; Ti 39.84%

Source/Synthesis: Synth. by heating MgO + TiO₂ at 1200° for 48h, then at 1400° for 24h; or by thermal dec. of MgTiO(C₂O₄)₂·4H₂O

Use/Importance: Commercially available. Used as a ceramic dielectric, e.g. in capacitors

Physical Description: Colourless cryst.

Aldrich: 39618-4

References:

Pfaff, G. *et al.*, *J. Therm. Anal.*, 1987, **33**, 771, (*synth*)

Wechsler, B.A. *et al.*, *Acta Cryst. B*, 1989, **45**, 542, (*synth, cryst struct*)