



>>Entry Name: Methoxy(methyl carbonato-*O*)magnesium, 9Cl

Synonym(s): Methyl methoxymagnesium carbonate. (Hydrogen carbonato)methoxymagnesium methyl ester, 8Cl. Magnesium methyl carbonate. Stiles' reagent

CAS Registry Number: 4861-79-4

MeOCOOMgOMe

Molecular Formula: C₃H₆MgO₄

Molecular Weight: 130.383

Accurate Mass: 130.011652

Percentage Composition: C 27.64%; H 4.64%; Mg 18.64%; O 49.08%

Source/Synthesis: Prepd. by dissoln. of CO₂ in MeOH containing Mg(OMe)₂

Use/Importance: Commercially available in soln. in DMF (2*M*) or MeOH (0.5*M*). Mild carboxylating agent for nitro, carbonyl and 1-naphthol compds.

Physical Description: Moisture-sensitive; prepd. and used in soln.

Hazard & Toxicity: Highly toxic, irritant. Fl. p. 11°

Aldrich: 24842-8

Fluka: 63070

References:

Finkbeiner, H.L. *et al.*, *J.A.C.S.*, 1963, **85**, 616, (*synth, uses*)

Whitlock, B.J. *et al.*, *J.O.C.*, 1974, **39**, 3144, (*uses*)

Cate, L.A., *Synthesis*, 1983, 385, (*use*)

Sigma-Aldrich Library of Chemical Safety Data, 1988, **2**, 2179D; 2180A, (*haz*)