



Melting Point: Mp 191-193 dec.° (177-178°)

pKa Value: pK_{a1} 4.2; pK_{a2} 7.1 (25°)

Other Data: Opt. inactive (*meso*-)

Aldrich: 21670-4

Rare Chemicals Library: S43863-4

>>Derivative: Me ester

CAS Registry Number: 96185-91-0

Molecular Formula: C₁₀H₁₂O₄

Molecular Weight: 196.202

Accurate Mass: 196.07356

Percentage Composition: C 61.22%; H 6.16%; O 32.62%

Physical Description: Cryst. (MeOH)

Melting Point: Mp 103.5-105°

Aldrich: 34756-6

>>Derivative: Di-Me ester

Synonym(s): Dimethyl carbate. Dimelone

Use/Importance: Insect repellent

Physical Description: Cryst. when v. pure, usually a syrup

Melting Point: Mp 38°

Boiling Point: Bp_{12.5} 139°

Hazard & Toxicity: Eye irritant. LD₅₀ (rat, orl) 1000 mg/kg

>>Derivative: Anhydride

Synonym(s): 3*a*,4,7,7*a*-Tetrahydro-4,7-methanoisobenzofuran-1,3-dione, 9Cl. Nadic anhydride. Carbic anhydride. Endic anhydride. *endo*-Himic anhydride. Kayahard CD

CAS Registry Number: 129-64-6

Extra CAS Registry Numbers(s): 832-01-9

Source/Synthesis: Manuf. by Diels-Alder reaction of dicyclopentadiene and maleic anhydride

Use/Importance: Comonomer for polyester and polyimide resins

Physical Description: Orthorhombic cryst. (petrol)

Melting Point: Mp 164-165°

Other Data: Hydrol. by H₂O. Above Mp equilibrates with *exo*-form

Aldrich: 24763-4

Fluka: 74507

>>Derivative: Imide, *N*-hydroxy

see 3*a*,4,7,7*a*-Tetrahydro-2-hydroxy-4,7-methano-1*H*-isoindole-1,3(2*H*)-dione, [DMR72-O](#)

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 844C; 1177C; 1214C, (*nmr*)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 539A; 717C; 745C, (*ir*)

Diels, O. *et al.*, *Annalen*, 1930, **478**, 137, (*synth*)

Craig, D., *J.A.C.S.*, 1951, **73**, 4889, (*synth*)

Rice, L.M. *et al.*, *J.A.C.S.*, 1952, **74**, 3955, (*synth*)

Walton, H.M., *J.O.C.*, 1957, **22**, 308, (*Me ester*)

Nagase, T., *Bull. Chem. Soc. Jpn.*, 1964, **37**, 1175, (*synth, imide*)

Fr. Pat., 1965, 1 386 735; *CA*, **63**, 3006, (*synth, pharmacol, Noreximide*)

Destro, R. *et al.*, *Acta Cryst. B*, 1969, **25**, 2465, (*cryst struct*)

Destro, R. *et al.*, *Tet. Lett.*, 1969, 3223, (*cryst struct*)

Malikowska, H. *et al.*, *Chem. Anal. (Warsaw)*, 1974, **19**, 561, (*ms*)

Brouwer, H. *et al.*, *Org. Magn. Reson.*, 1977, **9**, 360, (*cmr*)

Raber, D.J. *et al.*, *J.O.C.*, 1979, **44**, 1149, (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials, 8th edn.*, Van Nostrand Reinhold, 1992, DRB400; NNI000