



>>Entry Name: **2,2-Dimethylpentanedioic acid**, 9CI

Synonym(s): 2,2-Dimethylglutaric acid

CAS Registry Number: 681-57-2

HOOCCH₂CH₂C(CH₃)₂COOH

Molecular Formula: C₇H₁₂O₄

Molecular Weight: 160.169

Accurate Mass: 160.07356

Percentage Composition: C 52.49%; H 7.55%; O 39.96%

Physical Description: Needles (C₆H₆/petrol)

Melting Point: Mp 85°

Aldrich: 20526-5

Fluka: 40320

>>Derivative: Di-Me ester

CAS Registry Number: 13051-32-6

Molecular Formula: C₉H₁₆O₄

Molecular Weight: 188.223

Accurate Mass: 188.10486

Percentage Composition: C 57.43%; H 8.57%; O 34.00%

Boiling Point: Bp 215-216°

>>Derivative: Dichloride

Molecular Formula: C₇H₁₀Cl₂O₂

Molecular Weight: 197.06

Accurate Mass: 196.005784

Percentage Composition: C 42.67%; H 5.11%; Cl 35.98%; O 16.24%

Boiling Point: Bp₃₅ 135-137°

>>Derivative: Anhydride

Synonym(s): Dihydro-3,3-dimethyl-2H-pyran-2,6(3H)-dione, 9CI

CAS Registry Number: 2938-48-9

Molecular Formula: C₇H₁₀O₃

Molecular Weight: 142.154

Accurate Mass: 142.062995

Percentage Composition: C 59.14%; H 7.09%; O 33.76%

Melting Point: Mp 38°

Aldrich: D15960-3

>>Derivative: Diamide

Molecular Formula: C₇H₁₄N₂O₂

Molecular Weight: 158.2

Accurate Mass: 158.105528

Percentage Composition: C 53.15%; H 8.92%; N 17.71%; O 20.23%

Melting Point: Mp 169-172°

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 769B; 1183C, (*nmr*)

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Hoch, D. *et al.*, *Helv. Chim. Acta*, 1954, **37**, 397, (*synth*)

Brown, R.F. *et al.*, *J.O.C.*, 1962, **27**, 1288, (*synth*)

Dauben, W.G. *et al.*, *J.O.C.*, 1972, **37**, 251, (*synth*)

Chiusoli, G.P. *et al.*, *Gazz. Chim. Ital.*, 1973, **103**, 619, (*synth*)