



>>Entry Name: Tetradecanedioic acid, 9CI
Synonym(s): Dodecane-1,12-dicarboxylic acid

CAS Registry Number: 821-38-5
HOOC(CH₂)₁₂COOH

Molecular Formula: C₁₄H₂₆O₄
Molecular Weight: 258.357
Accurate Mass: 258.18311
Percentage Composition: C 65.09%; H 10.14%; O 24.77%
Use/Importance: Cross-linking agent for epoxy resins. Monomer for polyamides
Melting Point: Mp 124-125°

Aldrich: D22120-1
Fluka: 87150
Sigma: T8764

>>Derivative: Di-Me ester

CAS Registry Number: 5024-21-5
Molecular Formula: C₁₆H₃₀O₄
Molecular Weight: 286.411
Accurate Mass: 286.21441
Percentage Composition: C 67.10%; H 10.56%; O 22.34%
Melting Point: Mp 58-60° (44°)

>>Derivative: Di-Et ester

CAS Registry Number: 19812-63-6
Molecular Formula: C₁₈H₃₄O₄
Molecular Weight: 314.464
Accurate Mass: 314.24571
Percentage Composition: C 68.75%; H 10.90%; O 20.35%
Melting Point: Mp 27°
Aldrich: 14404-5

>>Derivative: Chloride

CAS Registry Number: 21646-49-1
Molecular Formula: C₁₄H₂₄Cl₂O₂
Molecular Weight: 295.248
Accurate Mass: 294.115334
Percentage Composition: C 56.95%; H 8.19%; Cl 24.02%; O 10.84%
Physical Description: Cryst. (pentane)
Melting Point: Mp 33°

>>Derivative: Dinitrile
Synonym(s): 1,12-Dicyanododecane

CAS Registry Number: 7735-44-6
Molecular Formula: C₁₄H₂₄N₂
Molecular Weight: 220.357
Accurate Mass: 220.193948
Percentage Composition: C 76.31%; H 10.98%; N 12.71%
Melting Point: Mp 35-36°
Boiling Point: Bp_{0.04} 151-153°
Rare Chemicals Library: S44581-9
Other: PB D17853

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 773C; 947B, (*nmr*)
Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 497D; 620B, (*ir*)
Hunig, S. *et al.*, *Chem. Ber.*, 1959, **92**, 652, (*synth*)
Garnaise, D.L. *et al.*, *Can. J. Chem.*, 1961, **39**, 1493, (*dinitrile*)
Ried, W. *et al.*, *Annalen*, 1964, **678**, 113, (*synth*)
Saotome, K. *et al.*, *Bull. Chem. Soc. Jpn.*, 1966, **39**, 480, (*synth*)
Saotome, K. *et al.*, *J. Polym. Sci., Part A-1*, 1966, **4**, 1463; 1967, **5**, 107, (*polyamides*)
Harrison, C.R. *et al.*, *Synthesis*, 1980, 299, (*dinitrile*)