



>>Entry Name: Dodecanedioic acid, 9CI

Synonym(s): Decane-1,10-dicarboxylic acid

CAS Registry Number: 693-23-2

Type of Compound Code(s): VA0300

HOOC(CH₂)₁₀COOH

Molecular Formula: C₁₂H₂₂O₄

Molecular Weight: 230.303

Accurate Mass: 230.15181

Percentage Composition: C 62.58%; H 9.63%; O 27.79%

Biological Source: Isol. from leaf wax of *Chamaecyparis obtusa*

Use/Importance: Monomer for the manuf. of polyesters and polyamides, esp. Nylon-6,12

Physical Description: Cryst. (EtOAc)

Melting Point: Mp 129°

Boiling Point: Bp₁₀ 245°

Solubility: Sl. sol. hot H₂O

pKa Value: pK_{a1} 5.69; pK_{a2} 6.6 (25°, 40% EtOH aq.)

Aldrich: D100-9

Fluka: 44050

Sigma: D9630

>>Derivative: Mono-Me ester

CAS Registry Number: 3903-40-0

Molecular Formula: C₁₃H₂₄O₄

Molecular Weight: 244.33

Accurate Mass: 244.16746

Percentage Composition: C 63.91%; H 9.90%; O 26.19%

Physical Description: Cryst. (EtOH)

Melting Point: Mp 51-52°

>>Derivative: Di-Me ester

CAS Registry Number: 1731-79-9

Molecular Formula: C₁₄H₂₆O₄

Molecular Weight: 258.357

Accurate Mass: 258.18311

Percentage Composition: C 65.09%; H 10.14%; O 24.77%

Melting Point: Mp 31-31.5°

Boiling Point: Bp₉ 167-169°

Solubility: Insol. H₂O; sol. EtOAc

>>Derivative: Mono-Et ester

CAS Registry Number: 66003-63-2

Molecular Formula: C₁₄H₂₆O₄

Molecular Weight: 258.357

Accurate Mass: 258.18311

Percentage Composition: C 65.09%; H 10.14%; O 24.77%

Melting Point: Mp 39-41°

>>Derivative: Di-Et ester

CAS Registry Number: 10471-28-0

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 16.7-17.2°

Boiling Point: Bp₁₅ 204-205°

Aldrich: 13753-7