



>>Entry Name: Eicosanedioic acid

Synonym(s): Octadecane-1,18-dicarboxylic acid. Icosanedioic acid

CAS Registry Number: 2424-92-2

Type of Compound Code(s): VA0300

HOOC(CH₂)₁₈COOH

Molecular Formula: C₂₀H₃₈O₄

Molecular Weight: 342.518

Accurate Mass: 342.27701

Percentage Composition: C 70.13%; H 11.18%; O 18.68%

Biological Source: Constit. of conifer bark waxes and angiosperms, eg. *Rhus* spp.

Melting Point: Mp 125-126.5°

Boiling Point: Bp₂ 233-234°

>>Derivative: Di-Me ester

CAS Registry Number: 42235-38-1

Molecular Formula: C₂₂H₄₂O₄

Molecular Weight: 370.571

Accurate Mass: 370.30831

Percentage Composition: C 71.31%; H 11.42%; O 17.27%

Physical Description: Cryst. (MeOH)

Melting Point: Mp 65-65.8°

>>Derivative: Di-Et ester

CAS Registry Number: 42235-39-2

Molecular Formula: C₂₄H₄₆O₄

Molecular Weight: 398.625

Accurate Mass: 398.33961

Percentage Composition: C 72.31%; H 11.63%; O 16.05%

Melting Point: Mp 54.5-55.2°

>>Derivative: Dianilide

Molecular Formula: C₃₂H₄₈N₂O₂

Molecular Weight: 492.743

Accurate Mass: 492.371578

Percentage Composition: C 78.00%; H 9.82%; N 5.69%; O 6.49%

Physical Description: Cryst. (EtOH)

Melting Point: Mp 143-146°

>>Derivative: Dinitrile

Molecular Formula: C₂₀H₃₆N₂

Molecular Weight: 304.518

Accurate Mass: 304.287848

Percentage Composition: C 78.89%; H 11.92%; N 9.20%

Melting Point: Mp 70-71°

References:

Günthard, H.H. *et al.*, *Helv. Chim. Acta*, 1953, **36**, 1147, (*synth*)

Aleby, S. *et al.*, *Ark. Kemi*, 1969, **31**, 267, (*ir, polymorphism*)

Marosi, L. *et al.*, *Annalen*, 1973, 584, (*cryst struct*)