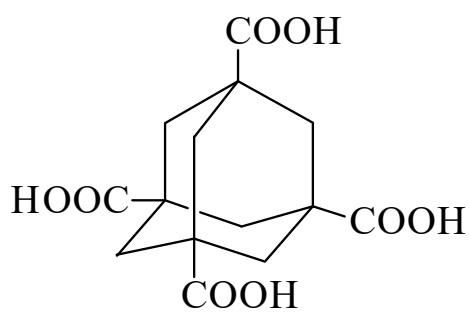




>>Entry Name: 1,3,5,7-Adamantanetetracarboxylic acid

Synonym(s): Tricyclo[3.3.1.1^{3,7}]decane-1,3,5,7-tetracarboxylic acid, 9CI



CAS Registry Number: 100884-80-8

Molecular Formula: C₁₄H₁₆O₈

Molecular Weight: 312.276

Accurate Mass: 312.08452

Percentage Composition: C 53.85%; H 5.16%; O 40.99%

Physical Description: Cryst. (EtOAc)

Melting Point: Mp 390 dec.° (browns >350°)

>>Derivative: Tetra-Me ester

Molecular Formula: C₁₈H₂₄O₈

Molecular Weight: 368.383

Accurate Mass: 368.14712

Percentage Composition: C 58.69%; H 6.57%; O 34.75%

Physical Description: Cryst. (MeOH)

Melting Point: Mp 168-169°

Boiling Point: Bp₁₂ 252°

>>Derivative: Tetra-Et ester

Molecular Formula: C₂₂H₃₂O₈

Molecular Weight: 424.49

Accurate Mass: 424.20972

Percentage Composition: C 62.25%; H 7.60%; O 30.15%

Melting Point: Mp 56-57°

>>Derivative: Tetraamide

CAS Registry Number: 16004-76-5

Molecular Formula: C₁₄H₂₀N₄O₄

Molecular Weight: 308.336

Accurate Mass: 308.148456

Percentage Composition: C 54.54%; H 6.54%; N 18.17%; O 20.76%

Physical Description: Cryst. (H₂O)

Melting Point: Mp 357 dec.°

References:

- Stetter, H. *et al.*, *Chem. Ber.*, 1956, **89**, 1922, (*synth*)
Landa, S. *et al.*, *Coll. Czech. Chem. Comm.*, 1959, **24**, 4004, (*synth*)
Stetter, H. *et al.*, *Annalen*, 1968, **717**, 60, (*amide*)
Ermer, O., *J.A.C.S.*, 1988, **110**, 3747, (*cryst struct*)
Ermer, O. *et al.*, *Chem. Ber.*, 1990, **123**, 1111, (*cryst struct, salts*)
Newkome, G.R. *et al.*, *J.O.C.*, 1992, **57**, 358, (*synth, pmr, cmr*)