



>>Entry Name: 3,3',4,4'-Biphenyltetracarboxylic acid, 8Cl

Synonym(s): 4,4'-Bipthalic acid

CAS Registry Number: 22803-05-0

Molecular Formula: C₁₆H₁₀O₈

Molecular Weight: 330.25

Accurate Mass: 330.03757

Percentage Composition: C 58.19%; H 3.05%; O 38.76%

Physical Description: Needles + 2H₂O (H₂O)

Other Data: Dec. >300°.

>>Derivative: Tetra-Me ester

CAS Registry Number: 36978-37-7

Molecular Formula: C₂₀H₁₈O₈

Molecular Weight: 386.357

Accurate Mass: 386.10017

Percentage Composition: C 62.18%; H 4.70%; O 33.13%

Physical Description: Prisms (MeOH)

Melting Point: Mp 105-106° (99-100°)

>>Derivative: Tetranitrile

Synonym(s): 3,3',4,4'-Tetracyanobiphenyl

CAS Registry Number: 23277-24-9

Molecular Formula: C₁₆H₆N₄

Molecular Weight: 254.25

Accurate Mass: 254.059246

Percentage Composition: C 75.59%; H 2.38%; N 22.04%

Physical Description: Cryst.

Melting Point: Mp 291-293°

>>Derivative: Dianhydride

Synonym(s): [5,5'-Biisobenzofuran]-1,1',3,3'-tetrone, 9Cl. BPDA

CAS Registry Number: 2420-87-3

Molecular Formula: C₁₆H₆O₆

Molecular Weight: 294.22

Accurate Mass: 294.01644

Percentage Composition: C 65.32%; H 2.06%; O 32.63%

Use/Importance: Monomer for polyimides

Physical Description: Cryst. powder

Melting Point: Mp 290-291° (295-302°)

Aldrich: 46331-0

References:

- Kenner, J. *et al.*, *J.C.S.*, 1914, **105**, 2471-2482, (*synth*)
Adrova, N.A. *et al.*, *Dokl. Akad. Nauk SSSR*, 1965, **165**, 1069-1070; *CA*, **64**, 12815b, (*polyimides*)
Fedurova, E.F. *et al.*, *Vysokomol. Soedin., Ser. B*, 1968, **10**, 273-277; *CA*, **69**, 11002c, (*polyimides*)
Ozolinga, V.A. *et al.*, *J. Org. Chem. USSR (Engl. Transl.)*, 1970, **6**, 1498, (*synth, ir*)
Iataaki, H. *et al.*, *J.O.C.*, 1973, **38**, 76-79, (*synth, ir, pmr*)
Kam, H. *et al.*, *Can. J. Chem.*, 1989, **67**, 1087-1097, (*tetranitrile, synth, ir, uv, pmr, cmr*)
Krafft, T.E. *et al.*, *J.O.C.*, 1990, **55**, 5430-5432, (*dianhydride*)