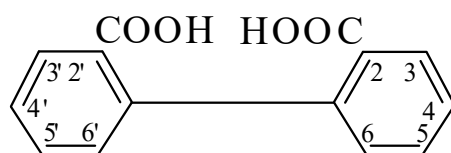




>>Entry Name: 2,2'-Biphenyldicarboxylic acid

Synonym(s): Diphenic acid



CAS Registry Number: 482-05-3

Molecular Formula: $C_{14}H_{10}O_4$

Molecular Weight: 242.231

Accurate Mass: 242.05791

Percentage Composition: C 69.42%; H 4.16%; O 26.42%

Source/Synthesis: Manuf. by oxidative cleavage of phenanthrene

Use/Importance: Used for gravimetric detn. of Th (pH 4.5-8.6). Comonomer in alkyd/unsatd. polyester resins and in polyamides

Physical Description: Leaflets (H_2O or AcOH)

Melting Point: Mp 232-233°

Solubility: Insol. H_2O

pKa Value: pK_{a1} 3.53; pK_{a2} 5.42 (H_2O) pK_{a1} 7.7; pK_{a2} 12.7 (MeOH)

Aldrich: 12669-1

Fluka: 42670

>>Derivative: Mono-Me ester

CAS Registry Number: 6926-84-7

Molecular Formula: $C_{15}H_{12}O_4$

Molecular Weight: 256.257

Accurate Mass: 256.07356

Percentage Composition: C 70.31%; H 4.72%; O 24.97%

Physical Description: Plates (MeOH aq.)

Melting Point: Mp 110-111°

>>Derivative: Di-Me ester

CAS Registry Number: 5807-64-7

Molecular Formula: $C_{16}H_{14}O_4$

Molecular Weight: 270.284

Accurate Mass: 270.08921

Percentage Composition: C 71.10%; H 5.22%; O 23.68%

Physical Description: Cryst. (MeOH)

Melting Point: Mp 74°

Boiling Point: Bp_{14} 204-206°

>>Derivative: Mono-Et ester

CAS Registry Number: 27428-70-2

Molecular Formula: $C_{16}H_{14}O_4$

Molecular Weight: 270.284

Accurate Mass: 270.08921

Percentage Composition: C 71.10%; H 5.22%; O 23.68%

Melting Point: Mp 91-92°

>>Derivative: Di-Et ester

CAS Registry Number: 5807-65-8

Molecular Formula: $C_{18}H_{18}O_4$

Molecular Weight: 298.338

Accurate Mass: 298.12051

Percentage Composition: C 72.47%; H 6.08%; O 21.45%

Melting Point: Mp 42°