



>>Derivative: Anhydride

CAS Registry Number: 5849-36-5

Type of Compound Code(s): AC6010

Molecular Formula: C₂₄H₂₀O₃P₂

Molecular Weight: 418.368

Accurate Mass: 418.088769

Percentage Composition: C 68.90%; H 4.82%; O 11.47%; P 14.81%

Physical Description: Cryst. (C₆H₆ or C₆H₆/hexane)

Melting Point: Mp 143.5-144°

Boiling Point: Bp_{0.2} 230°

Aldrich: 46134-2

>>Derivative: Anhydride with acetic acid

Synonym(s): Acetic diphenylphosphinic anhydride

CAS Registry Number: 7594-78-7

Type of Compound Code(s): AC6040 AC6010

Molecular Formula: C₁₄H₁₃O₃P

Molecular Weight: 260.229

Accurate Mass: 260.060232

Percentage Composition: C 64.62%; H 5.04%; O 18.44%; P 11.90%

Use/Importance: Acetylating agent

Physical Description: Cryst. (Et₂O)

Melting Point: Mp 93-97°

Other Data: Disproportionates when heated

>>Derivative: Anhydride with benzoic acid

Synonym(s): Benzoic diphenylphosphinic anhydride

CAS Registry Number: 4693-63-4

Type of Compound Code(s): AC6040 AC6010

Molecular Formula: C₁₉H₁₅O₃P

Molecular Weight: 322.299

Accurate Mass: 322.075882

Percentage Composition: C 70.81%; H 4.69%; O 14.89%; P 9.61%

Use/Importance: Benzoylating agent for O, N, S and C nucleophiles

Physical Description: Cryst. (C₆H₆)

Melting Point: Mp 108°. Mp 123-124°

Other Data: Disproportionates in boiling C₆H₆

References: