



>>Entry Name: 1,2-Bis(4-methylphenyl)ethanedione, 9CI

Synonym(s): *p*-Tolil, 8CI. Di-*p*-tolyl diketone. Di-*p*-tolylglyoxal. 4,4'-Dimethylbenzil

CAS Registry Number: 3457-48-5

Molecular Formula: C₁₆H₁₄O₂

Molecular Weight: 238.285

Accurate Mass: 238.09938

Percentage Composition: C 80.65%; H 5.92%; O 13.43%

Physical Description: Yellow plates (EtOH)

Melting Point: Mp 104-105°

Aldrich: 14670-6

>>Derivative: (*E,E*)-Dioxime

Synonym(s): *anti*-form. β-form

Molecular Formula: C₁₆H₁₆N₂O₂

Molecular Weight: 268.315

Accurate Mass: 268.121178

Percentage Composition: C 71.62%; H 6.01%; N 10.44%; O 11.93%

Physical Description: Needles

Melting Point: Mp 225°

>>Derivative: (*E,Z*)-Dioxime

Synonym(s): *amphi*-form. γ-form

Molecular Formula: C₁₆H₁₆N₂O₂

Molecular Weight: 268.315

Accurate Mass: 268.121178

Percentage Composition: C 71.62%; H 6.01%; N 10.44%; O 11.93%

Physical Description: Needles + 1CHCl₃ (CHCl₃)

Melting Point: Mp 200-232° (sinters at *ca.*)

Other Data: Long heat at 200° → β-dioxime

>>Derivative: (*Z,Z*)-Dioxime

Synonym(s): *syn*-form. α-form

Molecular Formula: C₁₆H₁₆N₂O₂

Molecular Weight: 268.315

Accurate Mass: 268.121178

Percentage Composition: C 71.62%; H 6.01%; N 10.44%; O 11.93%

Physical Description: Plates or needles

Melting Point: Mp 217°

>>Derivative: Monohydrazone

Molecular Formula: C₁₆H₁₆N₂O

Molecular Weight: 252.315

Accurate Mass: 252.126263

Percentage Composition: C 76.17%; H 6.39%; N 11.10%; O 6.34%

Physical Description: Needles (EtOH)

Melting Point: Mp 139-144°

>>Derivative: Dihydrazone

Molecular Formula: C₁₆H₁₈N₄

Molecular Weight: 266.345

Accurate Mass: 266.153146

Percentage Composition: C 72.15%; H 6.81%; N 21.04%

Physical Description: Needles (EtOH)

Melting Point: Mp 137°

References: