



>>Entry Name: Benzil, 8Cl

Synonym(s): Diphenylethanedione, 9Cl. Dibenzoyl. Bibenzoyl. Diphenyl  $\alpha,\alpha$ -diketone. Diphenylglyoxal

CAS Registry Number: 134-81-6

Related CAS Registry Numbers(s): 14090-77-8 23873-81-6  
PhCOCOPh

Molecular Formula:  $C_{14}H_{10}O_2$

Molecular Weight: 210.232

Accurate Mass: 210.06808

Percentage Composition: C 79.99%; H 4.79%; O 15.22%

Physical Description: Yellow prisms (EtOH)

Melting Point: Mp 95°

Boiling Point: Bp 346-348°. Bp<sub>12</sub> 188°

Hazard & Toxicity: Eye irritant. LD<sub>50</sub> (rat, orl) 2710 mg/kg

Aldrich: B515-1

Fluka: 12150

Sigma: B0383

>>Derivative: (E)-Monoxime

Synonym(s):  $\alpha$ -Monoxime. Diphenylethanedione monoxime

CAS Registry Number: 574-15-2

Molecular Formula:  $C_{14}H_{11}NO_2$

Molecular Weight: 225.246

Accurate Mass: 225.078979

Percentage Composition: C 74.65%; H 4.92%; N 6.22%; O 14.21%

Use/Importance: Used for photometric detn. of Co, Cu, Ni

Physical Description: Cryst. +  $\frac{1}{2}$   $C_6H_6$  ( $C_6H_6$ )

Melting Point: Mp 137-138°. Mp 140°

Solubility: Sol. Et<sub>2</sub>O, EtOH, Me<sub>2</sub>CO; insol. H<sub>2</sub>O

pKa Value: pK<sub>a1</sub> 8.6 (25°)

>>Derivative: (Z)-Monoxime

Synonym(s):  $\beta$ -Monoxime

CAS Registry Number: 574-16-3

Molecular Formula:  $C_{14}H_{11}NO_2$

Molecular Weight: 225.246

Accurate Mass: 225.078979

Percentage Composition: C 74.65%; H 4.92%; N 6.22%; O 14.21%

Physical Description: Leaflets

Melting Point: Mp 62-63°. Mp 70° (unsolvated 113-114°)

>>Derivative: (E)-Monoxime, O-Me

Molecular Formula:  $C_{15}H_{13}NO_2$

Molecular Weight: 239.273

Accurate Mass: 239.094629

Percentage Composition: C 75.30%; H 5.48%; N 5.85%; O 13.37%

Melting Point: Mp 64-65°

>>Derivative: (Z)-Monoxime, O-Me

Molecular Formula:  $C_{15}H_{13}NO_2$

Molecular Weight: 239.273

Accurate Mass: 239.094629

Percentage Composition: C 75.30%; H 5.48%; N 5.85%; O 13.37%

Melting Point: Mp 62-63°