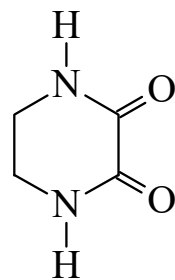




>>Entry Name: **2,3-Piperazinedione**, 9CI

Synonym(s): 2,3-Diketopiperazine



CAS Registry Number: 13092-86-9

Related CAS Registry Numbers(s): 59702-29-3

Molecular Formula: C₄H₆N₂O₂

Molecular Weight: 114.104

Accurate Mass: 114.042928

Percentage Composition: C 42.11%; H 5.30%; N 24.55%; O 28.04%

Physical Description: Solid

Melting Point: Mp 285 dec.°

Rare Chemicals Library: S1502-5

>>Derivative: 1-Et

CAS Registry Number: 59702-31-7

Molecular Formula: C₆H₁₀N₂O₂

Molecular Weight: 142.157

Accurate Mass: 142.074228

Percentage Composition: C 50.69%; H 7.09%; N 19.71%; O 22.51%

Physical Description: Coml. available synth. intermediate

>>Derivative: 1,4-Di-Me

CAS Registry Number: 59417-06-0

Molecular Formula: C₆H₁₀N₂O₂

Molecular Weight: 142.157

Accurate Mass: 142.074228

Percentage Composition: C 50.69%; H 7.09%; N 19.71%; O 22.51%

Use/Importance: Reacts with organometallic reagents to give α -diketones

Physical Description: Cryst. (PhMe)

Melting Point: Mp 178-179°

>>Derivative: 1,4-Didecyl

CAS Registry Number: 156909-31-8

Molecular Formula: C₂₄H₄₆N₂O₂

Molecular Weight: 394.64

Accurate Mass: 394.355928

Percentage Composition: C 73.04%; H 11.75%; N 7.10%; O 8.11%

Use/Importance: Reagent for the synth. of unsym. α -diketones

Physical Description: Cryst. (hexane)

Melting Point: Mp 114-116°

References:

Goulding, C.E. *et al.*, *J.A.C.S.*, 1948, **70**, 1967, (*synth*)

Saikawa, I. *et al.*, *Yakugaku Zasshi*, 1977, **97**, 980; *CA*, **88**, 105210p, (*synth, monoalkyl derivs*)

Japan. Pat., 1981, 81 77 226; *CA*, **95**, 203994m, (*synth, monoalkyl derivs*)

Mueller-Westerhoff, U.T. *et al.*, *J.O.C.*, 1994, **59**, 4988, (*synth, pmr, cmr, ms, use, dialkyl derivs*)