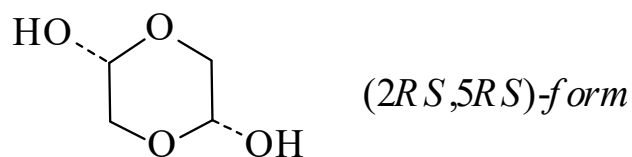




>>Entry Name: 1,4-Dioxane-2,5-diol, 9CI

Synonym(s): 2,5-Dihydroxy-1,4-dioxane. Glycollaldehyde dimer



CAS Registry Number: 23147-58-2

Related CAS Registry Numbers(s): 6963-05-9

Molecular Formula: C₄H₈O₄

Molecular Weight: 120.105

Accurate Mass: 120.04226

Percentage Composition: C 40.00%; H 6.71%; O 53.28%

Aldrich: G680-5

Fluka: 50580

Sigma: G9376

>>Variant: (2*R*,5*R*)-form

Synonym(s): (±)-*cis*-form

Molecular Formula: C₄H₈O₄

Molecular Weight: 120.105

Accurate Mass: 120.04226

Percentage Composition: C 40.00%; H 6.71%; O 53.28%

>>Derivative: Di-Ac

Molecular Formula: C₈H₁₂O₆

Molecular Weight: 204.179

Accurate Mass: 204.06339

Percentage Composition: C 47.06%; H 5.92%; O 47.02%

Boiling Point: Bp₁ 100°

>>Variant: (2*R*,5*SR*)-form

Synonym(s): *trans*-form

Molecular Formula: C₄H₈O₄

Molecular Weight: 120.105

Accurate Mass: 120.04226

Percentage Composition: C 40.00%; H 6.71%; O 53.28%

Physical Description: Cryst. (Et₂O)

Melting Point: Mp 84-85° (rapid heat). Mp 75-76°

>>Derivative: Di-Ac

CAS Registry Number: 20688-60-2

Melting Point: Mp 156-157° (161-162°)

References:

- Aldrich Library of FT-IR Spectra*, 1st edn., 1985, **1**, 478D, (*ir*)
Aldrich Library of ¹³C and ¹H FT NMR Spectra, 1992, **1**, 748A, (*nmr*)
Späth, E. *et al.*, *Monatsh. Chem.*, 1946, **76**, 65; *CA*, **41**, 2002, (*synth*)
Bassignani, L. *et al.*, *Chem. Ber.*, 1979, **112**, 148, (*synth*)
Yaylayan, V.A. *et al.*, *Carbohydr. Res.*, 1998, **309**, 31-38, (*struct*)