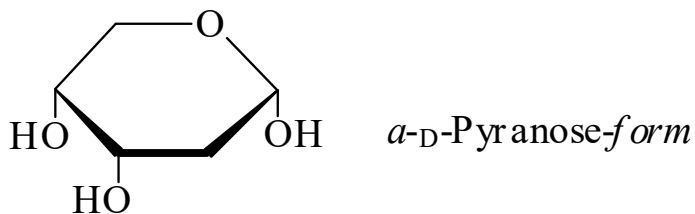




>>Entry Name: **2-Deoxy-*erythro*-pentose**

Synonym(s): 2-Deoxyribose, 9Cl, 8Cl. Desoxyribose. Ribodesose. Thymnose. de-Rib. 2-Deoxyarabinose



CAS Registry Number: 1724-14-7

Molecular Formula: C₅H₁₀O₄

Molecular Weight: 134.132

Accurate Mass: 134.05791

Percentage Composition: C 44.77%; H 7.51%; O 47.71%

General Statement: An aq. soln. at 31° contains 40% α-pyr, 35% β-pyr, 13% α-fur, 12% β-fur

>>Variant: D-form

CAS Registry Number: 533-67-5

Molecular Formula: C₅H₁₀O₄

Molecular Weight: 134.132

Accurate Mass: 134.05791

Percentage Composition: C 44.77%; H 7.51%; O 47.71%

Biological Source: Constit. of many nucleic acids. Present in all animal and plant tissues as component of Deoxyribonucleic acid [BXT70-Z](#)

Physical Description: Cryst. (EtOAc)

Melting Point: Mp 91°. Mp 96-98°

Optical Rotation: [α]_D −57 (c, 1.1 in H₂O) (−53.8)

pKa Value: pK_{a1} 12.61 (25°)

Other Data: Crystallises as β-anomer

Aldrich: 12164-9

Fluka: 31170

Sigma: D5899

>>Derivative: 4-Nitrophenylhydrazone

Melting Point: Mp 160°

Optical Rotation: [α]_D¹⁴ −11.1 (c, 0.09 in EtOH)

>>Derivative: 1,3,4-Tri-Ac

Synonym(s): 1,3,4-Tri-*O*-acetyl-2-deoxy-D-*erythro*-pentose

Molecular Formula: C₁₁H₁₆O₇

Molecular Weight: 260.243

Accurate Mass: 260.089605

Percentage Composition: C 50.77%; H 6.20%; O 43.04%

Physical Description: Needles (MeOH)

Melting Point: Mp 98°

Optical Rotation: [α]_D²³ −171.8 (c, 0.56 in CHCl₃)

>>Derivative: 3,4,5-Tri-Ac

Synonym(s): 3,4,5-Tri-*O*-acetyl-2-deoxy-D-*erythro*-pentose

Molecular Formula: C₁₁H₁₆O₇

Molecular Weight: 260.243

Accurate Mass: 260.089605

Percentage Composition: C 50.77%; H 6.20%; O 43.04%

Boiling Point: Bp_{0.0001} 105° (bath)

Optical Rotation: [α]_D²¹ +3.4 (c, 4.57 in Py)