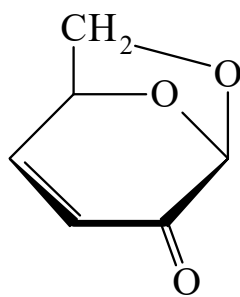




>>Entry Name: 1,6-Anhydro-3,4-dideoxy-*glycero*-hex-3-enopyranos-2-ulose

Synonym(s): 6,8-Dioxabicyclo[3.2.1]oct-2-en-4-one, 9Cl



Molecular Formula: C₆H₆O₃

Molecular Weight: 126.112

Accurate Mass: 126.031695

Percentage Composition: C 57.14%; H 4.80%; O 38.06%

>>Variant: D-form

Synonym(s): Levoglucosenone

CAS Registry Number: 37112-31-5

Molecular Formula: C₆H₆O₃

Molecular Weight: 126.112

Accurate Mass: 126.031695

Percentage Composition: C 57.14%; H 4.80%; O 38.06%

Biological Source: Pyrolytic prod. from cellulose, in low yield

Use/Importance: Chiral synthon

Physical Description: Syrup

Optical Rotation: [α]_D²⁰ -518 (c, 1.0 in CHCl₃)

>>Derivative: 2,4-Dinitrophenylhydrazone

Melting Point: Mp 214-215°

Optical Rotation: [α]_D²⁶ -122 (CHCl₃)

>>Derivative: Semicarbazone

Melting Point: Mp 223-226 dec.°

Optical Rotation: [α]_D²⁶ -241 (c, 3.99 in Py/AcOH)

>>Variant: L-form

Molecular Formula: C₆H₆O₃

Molecular Weight: 126.112

Accurate Mass: 126.031695

Percentage Composition: C 57.14%; H 4.80%; O 38.06%

Physical Description: Syrup

Optical Rotation: [α]_D +518 (c, 1.2 in CHCl₃)

References:

- Halpern, Y. *et al.*, *J.O.C.*, 1973, **38**, 204-209, (*isol, struct, ir, uv, pmr, cmr, ms*)
Shafidazeh, F. *et al.*, *Carbohydr. Res.*, 1976, **46**, 149-154; 149-154; 1977, **58**, 79-86, (*synth*)
Koel, P. *et al.*, *Chem. Ber.*, 1976, **109**, 337-344, (*synth*)
Brimacombe, J.S. *et al.*, *Carbohydr. Res.*, 1979, **68**, 231-238, (*synth*)
Bhate, P. *et al.*, *Carbohydr. Res.*, 1983, **122**, 189-199, (*synth*)
Mori, M. *et al.*, *Carbohydr. Res.*, 1984, **129**, 73-86, (*synth, purifn*)
Gelas-Mialhe, Y. *et al.*, *Carbohydr. Res.*, 1990, **199**, 243, (*synth*)
Matsumoto, K. *et al.*, *Bull. Chem. Soc. Jpn.*, 1991, **64**, 2309, (*bibl*)
Witczak, Z.J., *Front. Biomed. Biotechnol.*, 1994, **2**, 3-16, (*rev*)
Kawai, T. *et al.*, *Aust. J. Chem.*, 1995, **48**, 115, (*use*)
Witczak, Z. *et al.*, *Synlett*, 1996, 108-110, (*L-form, synth, pmr, cmr*)