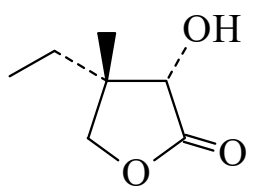
>>**Entry Name: 4-Ethyldihydro-3-hydroxy-4-methyl-2(3*H*)-furanone,** 9CI
Synonym(s): β-Ethyl-β-methylbutyrolactone. Algin



(3*S*,4*S*)-*form*

CAS Registry Number: 57606-04-9
Related CAS Registry Numbers(s): 39748-50-0 134780-01-1

Molecular Formula: $C_7H_{12}O_3$
Molecular Weight: 144.17
Accurate Mass: 144.078645
Percentage Composition: C 58.32%; H 8.39%; O 33.29%

>>**Variant:** (3*S*,4*S*)-form
Synonym(s): (+)-*erythro*-form

CAS Registry Number: 108865-89-0

Molecular Formula: $C_7H_{12}O_3$
Molecular Weight: 144.17
Accurate Mass: 144.078645
Percentage Composition: C 58.32%; H 8.39%; O 33.29%
Biological Source: Isol. from *Marshallia tenuifolia*
Physical Description: Gum
Optical Rotation: $[\alpha]_D^{20}$+3.5 (c, 0.48 in $CHCl_3$)
Other Data: Pantolactone analogue belonging to the opposite enantiomeric series and therefore involving anomalous biosynth.

>>**Derivative:** *O*-β-D-Glucopyranoside
Synonym(s): Alginoside

CAS Registry Number: 57576-54-2

Molecular Formula: $C_{13}H_{22}O_8$
Molecular Weight: 306.312
Accurate Mass: 306.13147
Percentage Composition: C 50.98%; H 7.24%; O 41.79%
Biological Source: Isol. from epigeal parts of *Rodiola algida*
Melting Point: Mp 192°
Optical Rotation: $[\alpha]_D^{20}$–31 (c, 1.8 in H_2O)
Other Data: No abs. config. assigned, may not necessarily be derived from the (3*S*,4*S*)-form isol. by other workers

>>**Variant:** (3*RS*,4*RS*)-form
Synonym(s): (±)-*erythro*-form

Molecular Formula: $C_7H_{12}O_3$
Molecular Weight: 144.17
Accurate Mass: 144.078645
Percentage Composition: C 58.32%; H 8.39%; O 33.29%

>>**Derivative:** *p*-Nitrobenzoyl

Melting Point: Mp 112-113°

References:

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Herz, W. *et al.*, *Phytochemistry*, 1987, **26**, 1175, *(isol, ir, pmr, ms)*
Tadano, K. *et al.*, *J.O.C.*, 1988, **53**, 3868, *(synth, ir, pmr, cmr, abs config, ms)*
Kinoshita, T. *et al.*, *J. Het. Chem.*, 1991, **28**, 619, *(synth)*

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