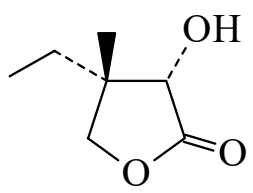
>>**Entry Name: 4-Ethyldihydro-3-hydroxy-4-methyl-2(3*H*)-furanone,** 9CI
**Synonym(s):** β-Ethyl-β-methylbutyrolactone. Algin




(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:**

Pangarova, T.T. *et al.*, *Khim. Prir. Soedin.*, 1975, **11**, 334; *Chem. Nat. Compd. (Engl. Transl.)*, 349, *(Algidin)*
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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