

# 1,3-Dioxane, 2-ethyl-2-methyl-4-(2-pentenyl), 2S,4R

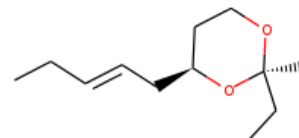
**InChI:** InChI=1S/C12H22O2/c1-4-6-7-8-11-9-10-13-12(3,5-2)14-11/h6-7,11H,4-5,8-10H2,1-3H3/b7-6+/t11-,12+/m0/s1

**InChI Key:** ZBHDHORAJVLHID-FNSAGKMKSA-N

**Formula:** C<sub>12</sub>H<sub>22</sub>O<sub>2</sub>

**SMILES:** CCC=CCC1CCOC(C)(CC)O1

**Molecular Weight:** 198.30



## Physical Properties

Property	Value	Unit	Source
$\Delta_f G^\circ$	-30.61	kJ/mol	Joback Method
$\Delta_f H^\circ_{\text{gas}}$	-388.57	kJ/mol	Joback Method
$\Delta_{\text{fus}} H^\circ$	29.60	kJ/mol	Joback Method
$\Delta_{\text{vap}} H^\circ$	50.25	kJ/mol	Joback Method
$\log P_{\text{oct/wat}}$	3.274		Crippen Method
$P_c$	2227.09	kPa	Joback Method
$T_{\text{boil}}$	547.14	K	Joback Method
$T_c$	753.86	K	Joback Method
$T_{\text{fus}}$	300.10	K	Joback Method
$V_c$	0.659	m <sup>3</sup> /kg-mol	Joback Method

## Temperature Dependent Properties

Property	Value	Unit	Temperature (K)	Source
$C_{p,\text{gas}}$	448.38	J/mol×K	547.14	Joback Method

## Sources

**Joback Method:** [https://en.wikipedia.org/wiki/Joback\\_method](https://en.wikipedia.org/wiki/Joback_method)

**NIST Webbook:** [http://webbook.nist.gov/cgi/inchi/InChI=1S/C12H22O2/c1-4-6-7-8-11-9-10-13-12\(3,5-2\)14-11/h6-7,11H,4-5,8-10H2,1-3H3/b7-6+/t11-,12+/m0/s1](http://webbook.nist.gov/cgi/inchi/InChI=1S/C12H22O2/c1-4-6-7-8-11-9-10-13-12(3,5-2)14-11/h6-7,11H,4-5,8-10H2,1-3H3/b7-6+/t11-,12+/m0/s1)

**Crippen Method:** <http://pubs.acs.org/doi/abs/10.1021/ci9903071>

## Legend

$C_{p, \text{gas}}$ : Ideal gas heat capacity (J/mol×K).

$\Delta_f G^\circ$ : Standard Gibbs free energy of formation (kJ/mol).

$\Delta_f H^\circ_{\text{gas}}$ : Enthalpy of formation at standard conditions (kJ/mol).

$\Delta_{\text{fus}} H^\circ$ : Enthalpy of fusion at standard conditions (kJ/mol).

$\Delta_{\text{vap}} H^\circ$ : Enthalpy of vaporization at standard conditions (kJ/mol).

$\log P_{\text{oct/wat}}$ : Octanol/Water partition coefficient .

$P_c$ : Critical Pressure (kPa).

$T_{\text{boil}}$ : Normal Boiling Point Temperature (K).

$T_c$ : Critical Temperature (K).

$T_{\text{fus}}$ : Normal melting (fusion) point (K).

$V_c$ : Critical Volume (m<sup>3</sup>/kg-mol).

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