

# 1,3-Dioxane, 2-ethyl-4-pentyl, 2R,4R

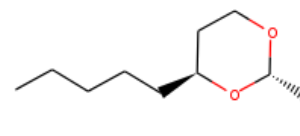
**InChI:** InChI=1S/C11H22O2/c1-3-5-6-7-10-8-9-12-11(4-2)13-10/h10-11H,3-9H2,1-2H3/t10-,11-/m0/s1

**InChI Key:** UCGYQTHBPZXKHC-QWRGUYRKSA-N

**Formula:** C11H22O2

**SMILES:** CCCCC1CCOC(CC)O1

**Molecular Weight:** 186.29



## Physical Properties

Property	Value	Unit	Source
$\Delta_f G^\circ$	-113.76	kJ/mol	Joback Method
$\Delta_f H^\circ_{\text{gas}}$	-500.39	kJ/mol	Joback Method
$\Delta_{\text{fus}} H^\circ$	33.11	kJ/mol	Joback Method
$\Delta_{\text{vap}} H^\circ$	49.22	kJ/mol	Joback Method
$\log P_{\text{oct/wat}}$	3.108		Crippen Method
$P_c$	2224.99	kPa	Joback Method
$T_{\text{boil}}$	519.86	K	Joback Method
$T_c$	712.81	K	Joback Method
$T_{\text{fus}}$	270.01	K	Joback Method
$V_c$	0.625	m <sup>3</sup> /kg-mol	Joback Method

## Temperature Dependent Properties

Property	Value	Unit	Temperature (K)	Source
$C_{p,\text{gas}}$	416.76	J/mol×K	519.86	Joback Method
$\eta$	0.0002792	Paxs	519.86	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/C11H22O2/c1-3-5-6-7-10-8-9-12-11\(4-2\)13-10/h10-11H,3-9H2,1-2H3/t10-,11-/m0/s1](http://webbook.nist.gov/cgi/inchi/InChI=1S/C11H22O2/c1-3-5-6-7-10-8-9-12-11(4-2)13-10/h10-11H,3-9H2,1-2H3/t10-,11-/m0/s1)

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

## Legend

$C_{p,gas}$ : Ideal gas heat capacity (J/molxK).

$\eta$ : Dynamic viscosity (Pa $\times$ s).

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

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

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

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

$logP_{oct/wat}$ : Octanol/Water partition coefficient .

$P_c$ : Critical Pressure (kPa).

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

$T_c$ : Critical Temperature (K).

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

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

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