1-Decanol, 2-ethyl-

Other names: 2-Ethyl-1-decanol
Inchi: InChI=1S/C12H26O/c1-3-5-6-7-8-9-10-12(4-2)11-13/h12-13H,3-11H2,1-2H3
InchiKey: LTHQZRHTXDZWGX-UHFFFAOYSA-N
Formula: C12H26O
SMILES: CCCCCCCCC(CC)CO
Mol. weight [g/mol]: 186.33
CAS: 21078-65-9

Physical Properties

Property code	Value	Unit	Source
gf	-89.10	kJ/mol	Joback Method
hf	-448.52	kJ/mol	Joback Method
hfus	27.40	kJ/mol	Joback Method
hvap	58.60	kJ/mol	Joback Method
log10ws	-3.87		Crippen Method
logp	3.756		Crippen Method
mcvol	185.810	ml/mol	McGowan Method
pc	1940.65	kPa	Joback Method
tb	565.70	K	Joback Method
tc	725.92	K	Joback Method
tf	270.82	K	Joback Method
vc	0.721	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	478.70	J/mol×K	565.70	Joback Method
cpg	547.50	J/mol×K	699.22	Joback Method
cpg	534.85	J/mol×K	672.51	Joback Method
cpg	521.66	J/mol×K	645.81	Joback Method
cpg	507.92	J/mol×K	619.11	Joback Method
cpg	493.60	J/mol×K	592.40	Joback Method
cpg	559.62	J/mol×K	725.92	Joback Method
dvisc	0.0000810	Pa×s	565.70	Joback Method

dvisc	0.0001387	Pa×s	516.55	Joback Method
dvisc	0.0002660	Pa×s	467.41	Joback Method
dvisc	0.0005944	Pa×s	418.26	Joback Method
dvisc	0.0016449	Pa×s	369.11	Joback Method
dvisc	0.0062239	Pa×s	319.97	Joback Method
dvisc	0.0381702	Pa×s	270.82	Joback Method

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C21078659&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume