3-Ethyl-2-pentanol

Other names: 2-Pentanol, 3-ethyl-
Inchi: InChI=1S/C7H16O/c1-4-7(5-2)6(3)8/h6-8H,4-5H2,1-3H3
InchiKey: NEHRITNOSGFGGS-UHFFFAOYSA-N
Formula: C7H16O
SMILES: CCC(CC)C(C)O
Mol. weight [g/mol]: 116.20
CAS: 609-27-8

Physical Properties

Property code	Value	Unit	Source
gf	-133.64	kJ/mol	Joback Method
hf	-350.60	kJ/mol	Joback Method
hfus	10.93	kJ/mol	Joback Method
hvap	47.08	kJ/mol	Joback Method
log10ws	-1.89		Crippen Method
logp	1.803		Crippen Method
mcvol	115.360	ml/mol	McGowan Method
pc	3149.09	kPa	Joback Method
tb	422.15 ± 3.00	K	NIST Webbook
tc	618.05	K	Joback Method
tf	199.47	K	Joback Method
vc	0.434	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	248.03	J/mol×K	450.86	Joback Method
cpg	259.20	J/mol×K	478.73	Joback Method
cpg	269.95	J/mol×K	506.59	Joback Method
cpg	280.27	J/mol×K	534.46	Joback Method
cpg	290.18	J/mol×K	562.32	Joback Method
cpg	299.70	J/mol×K	590.19	Joback Method
cpg	308.82	J/mol×K	618.05	Joback Method
dvisc	0.4386858	Pa×s	199.47	Joback Method

dvisc	0.0395574	Pa×s	241.37	Joback Method
dvisc	0.0072680	Pa×s	283.27	Joback Method
dvisc	0.0020664	Pa×s	325.16	Joback Method
dvisc	0.0007829	Pa×s	367.06	Joback Method
dvisc	0.0003619	Pa×s	408.96	Joback Method
dvisc	0.0001931	Pa×s	450.86	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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=C609278&Units=SI

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