1-Pentanol, 4-methyl-2-propyl-

Other names: 4-methyl-2-propylpentan-1-ol
Inchi: InChI=1S/C9H20O/c1-4-5-9(7-10)6-8(2)3/h8-10H,4-7H2,1-3H3
InchiKey: IGSWOIOCVJEQRH-UHFFFAOYSA-N
Formula: C9H20O
SMILES: CCCC(CO)CC(C)C
Mol. weight [g/mol]: 144.25
CAS: 54004-41-0

Physical Properties

Property code	Value	Unit	Source
gf	-116.80	kJ/mol	Joback Method
hf	-391.88	kJ/mol	Joback Method
hfus	16.11	kJ/mol	Joback Method
hvap	51.53	kJ/mol	Joback Method
log10ws	-2.37		Crippen Method
logp	2.441		Crippen Method
mcvol	143.540	ml/mol	McGowan Method
pc	2566.29	kPa	Joback Method
tb	465.40 ± 4.00	K	NIST Webbook
tc	661.81	K	Joback Method
tf	222.01	K	Joback Method
vc	0.546	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	334.77	J/mol×K	496.62	Joback Method
cpg	394.96	J/mol×K	634.28	Joback Method
cpg	383.89	J/mol×K	606.75	Joback Method
cpg	372.35	J/mol×K	579.21	Joback Method
cpg	360.33	J/mol×K	551.68	Joback Method
cpg	347.81	J/mol×K	524.15	Joback Method
cpg	405.56	J/mol×K	661.81	Joback Method
dvisc	0.0001337	Pa×s	496.62	Joback Method

dvisc	0.0002445	Pa×s	450.85	Joback Method
dvisc	0.0005125	Pa×s	405.08	Joback Method
dvisc	0.0012970	Pa×s	359.31	Joback Method
dvisc	0.0043049	Pa×s	313.55	Joback Method
dvisc	0.0215322	Pa×s	267.78	Joback Method
dvisc	0.2091511	Pa×s	222.01	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C54004410&Units=SI
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

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