

2-Methyl-2-propyl-1-pentanol

Other names:	1-Pentanol, 2-methyl-2-propyl-
Inchi:	InChI=1S/C9H20O/c1-4-6-9(3,8-10)7-5-2/h10H,4-8H2,1-3H3
InchiKey:	VEOIPGBMBGMJFG-UHFFFAOYSA-N
Formula:	C9H20O
SMILES:	CCCC(C)(CO)CCC
Mol. weight [g/mol]:	144.25
CAS:	57409-52-6

Physical Properties

Property code	Value	Unit	Source
gf	-109.08	kJ/mol	Joback Method
hf	-390.07	kJ/mol	Joback Method
hfus	15.74	kJ/mol	Joback Method
hvap	51.01	kJ/mol	Joback Method
log10ws	-2.61		Crippen Method
logp	2.585		Crippen Method
mcvol	143.540	ml/mol	McGowan Method
pc	2574.11	kPa	Joback Method
tb	494.27	K	Joback Method
tc	662.00	K	Joback Method
tf	254.43	K	Joback Method
vc	0.547	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	337.27	J/molxK	494.27	Joback Method
cpg	350.61	J/molxK	522.22	Joback Method
cpg	363.35	J/molxK	550.18	Joback Method
cpg	375.49	J/molxK	578.13	Joback Method
cpg	387.08	J/molxK	606.09	Joback Method
cpg	398.12	J/molxK	634.04	Joback Method
cpg	408.65	J/molxK	662.00	Joback Method
dvisc	0.0562745	Paxs	254.43	Joback Method

dvisc	0.0106579	Paxs	294.40	Joback Method
dvisc	0.0030048	Paxs	334.38	Joback Method
dvisc	0.0011101	Paxs	374.35	Joback Method
dvisc	0.0004970	Paxs	414.32	Joback Method
dvisc	0.0002563	Paxs	454.30	Joback Method
dvisc	0.0001471	Paxs	494.27	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=C57409526&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

Legend

cp_g:	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:	Log ₁₀ of Water solubility in mol/l
log_p:	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

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