4-Methyl-1-nonanol

Inchi: InChI=1S/C10H22O/c1-3-4-5-7-10(2)8-6-9-11/h10-11H,3-9H2,1-2H3
InchiKey: HECVGHIJHFNAIL-UHFFFAOYSA-N
Formula: C10H22O
SMILES: CCCCCC(C)CCCO
Mol. weight [g/mol]: 158.28
CAS: 1489-47-0

Physical Properties

Property code	Value	Unit	Source
gf	-105.94	kJ/mol	Joback Method
hf	-407.24	kJ/mol	Joback Method
hfus	22.22	kJ/mol	Joback Method
hvap	54.14	kJ/mol	Joback Method
log10ws	-3.03		Crippen Method
logp	2.975		Crippen Method
mcvol	157.630	ml/mol	McGowan Method
pc	2315.84	kPa	Joback Method
rinpol	1234.00		NIST Webbook
rinpol	1234.00		NIST Webbook
ripol	1689.00		NIST Webbook
tb	519.94	K	Joback Method
tc	681.25	K	Joback Method
tf	248.28	K	Joback Method
vc	0.609	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	380.84	J/mol×K	519.94	Joback Method
cpg	394.36	J/mol×K	546.83	Joback Method
cpg	407.36	J/mol×K	573.71	Joback Method
cpg	419.85	J/mol×K	600.60	Joback Method
cpg	431.84	J/mol×K	627.48	Joback Method
cpg	443.35	J/mol×K	654.37	Joback Method

cpg	454.40	J/mol×K	681.25	Joback Method
dvisc	0.0660457	Pa×s	248.28	Joback Method
dvisc	0.0101842	Pa×s	293.56	Joback Method
dvisc	0.0025882	Pa×s	338.83	Joback Method
dvisc	0.0009085	Pa×s	384.11	Joback Method
dvisc	0.0003977	Pa×s	429.39	Joback Method
dvisc	0.0002038	Pa×s	474.66	Joback Method
dvisc	0.0001173	Pa×s	519.94	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.66700e+01
Coeff. B	-4.93415e+03
Coeff. C	-7.71340e+01
Temperature range (K), min.	378.32
Temperature range (K), max.	511.54

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C1489470&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume