10-Nonadecanol

Other names: nonadecan-10-ol
Inchi: InChI=1S/C19H40O/c1-3-5-7-9-11-13-15-17-19(20)18-16-14-12-10-8-6-4-2/h19-20H,3-18
InchiKey: ACMBVSPXQQUNOF-UHFFFAOYSA-N
Formula: C19H40O
SMILES: CCCCCCCCCC(O)CCCCCCCCC
Mol. weight [g/mol]: 284.52
CAS: 16840-84-9

Physical Properties

Property code	Value	Unit	Source
gf	-30.16	kJ/mol	Joback Method
hf	-593.00	kJ/mol	Joback Method
hfus	45.53	kJ/mol	Joback Method
hvap	74.18	kJ/mol	Joback Method
log10ws	-7.15		Crippen Method
logp	6.629		Crippen Method
mcvol	284.440	ml/mol	McGowan Method
pc	1155.35	kPa	Joback Method
tb	725.86	K	Joback Method
tc	892.78	K	Joback Method
tf	349.71	K	Joback Method
vc	1.113	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	867.16	J/mol×K	725.86	Joback Method
cpg	885.88	J/mol×K	753.68	Joback Method
cpg	903.78	J/mol×K	781.50	Joback Method
cpg	920.87	J/mol×K	809.32	Joback Method
cpg	937.19	J/mol×K	837.14	Joback Method
cpg	952.77	J/mol×K	864.96	Joback Method
cpg	967.63	J/mol×K	892.78	Joback Method
dvisc	0.0066420	Pa×s	349.71	Joback Method

dvisc	0.0012422	Pa×s	412.40	Joback Method
dvisc	0.0003616	Pa×s	475.09	Joback Method
dvisc	0.0001404	Pa×s	537.79	Joback Method
dvisc	0.0000664	Pa×s	600.48	Joback Method
dvisc	0.0000362	Pa×s	663.17	Joback Method
dvisc	0.0000219	Pa×s	725.86	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.53415e+01
Coeff. B	-5.54614e+03
Coeff. C	-1.12940e+02
Temperature range (K), min.	481.36
Temperature range (K), max.	665.90

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=C16840849&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

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume