n-Nonadecanol-1

Other names:	1-Nonadecanol
	N-NONADECANOL
	N-NONADECYL ALCOHOL
	Nonadecan-1-ol
	Nonadecanol
	Nonadecyl alcohol
Inchi:	InChI=1S/C19H40O/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20/h20H,2-19H2
InchiKey:	XGFDHKJUZCCPKQ-UHFFFAOYSA-N
Formula:	C19H40O
SMILES:	CCCCCCCCCCCCCCCCCCCO
Mol. weight [g/mol]:	284.52
CAS:	1454-84-8

Physical Properties

Property code	Value	Unit	Source
af	0.9760		KDB
gf	-27.72	kJ/mol	Joback Method
hf	-587.72	kJ/mol	Joback Method
hfus	49.05	kJ/mol	Joback Method
hvap	74.57	kJ/mol	Joback Method
log10ws	-7.04		Crippen Method
logp	6.630		Crippen Method
mcvol	284.440	ml/mol	McGowan Method
pc	1150.00	kPa	KDB
rinpol	2194.70		NIST Webbook
rinpol	2153.00		NIST Webbook
rinpol	2153.00		NIST Webbook
rinpol	2175.00		NIST Webbook
rinpol	2176.00		NIST Webbook
rinpol	2176.00		NIST Webbook
rinpol	2150.00		NIST Webbook
rinpol	2181.00		NIST Webbook
rinpol	2162.00		NIST Webbook
rinpol	2172.00		NIST Webbook
rinpol	2160.00		NIST Webbook
rinpol	2150.00		NIST Webbook
rinpol	2176.00		NIST Webbook

rinpol	2156.00		NIST Webbook
rinpol	2150.00		NIST Webbook
ripol	2652.00		NIST Webbook
ripol	2687.00		NIST Webbook
ripol	2637.00		NIST Webbook
ripol	2646.00		NIST Webbook
ripol	2652.00		NIST Webbook
tb	631.00	K	KDB
tc	775.30	K	KDB
tf	334.65 ± 0.50	K	NIST Webbook
tf	336.00 ± 4.00	K	NIST Webbook
tf	333.00 ± 4.00	K	NIST Webbook
tf	335.00	K	KDB
vc	1.119	m3/kmol	KDB
zc	0.1995390		KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	866.72	J/mol×K	726.30	Joback Method
cpg	885.33	J/mol×K	753.98	Joback Method
cpg	903.13	J/mol×K	781.66	Joback Method
cpg	920.14	J/mol×K	809.35	Joback Method
cpg	936.39	J/mol×K	837.03	Joback Method
cpg	951.91	J/mol×K	864.71	Joback Method
cpg	966.74	J/mol×K	892.39	Joback Method
dvisc	0.0000237	Pa×s	726.30	Joback Method
dvisc	0.0009853	Pa×s	424.97	Joback Method
dvisc	0.0043497	Pa×s	364.71	Joback Method
dvisc	0.0001353	Pa×s	545.50	Joback Method
dvisc	0.0000674	Pa×s	605.77	Joback Method
dvisc	0.0000381	Pa×s	666.03	Joback Method
dvisc	0.0003227	Pa×s	485.24	Joback Method
hfust	43.30	kJ/mol	333.90	NIST Webbook
hfust	43.30	kJ/mol	333.90	NIST Webbook
hfust	72.42	kJ/mol	334.50	NIST Webbook
hvapt	81.70	kJ/mol	559.50	NIST Webbook
hvapt	80.00	kJ/mol	564.50	NIST Webbook

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	439.70	K	0.04	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.64486e+01
Coeff. B	-6.07256e+03
Coeff. C	-1.16846e+02
Temperature range (K), min.	492.60
Temperature range (K), max.	662.10

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

KDB: https://www.cheric.org/files/research/kdb/mol/mol859.mol

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C1454848&Units=SI

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

Legend

af: Acentric Factor

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
hfust:	Enthalpy of fusion at a given temperature
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume
zc:	Critical Compressibility