9-Decen-1-ol

Other names:	1-Decen-10-ol
	9-Decenol
	Dec-9-en-1-ol
	Decylenic alcohol
	«omega»-Decen-1-ol
	«omega»-Decenol
	Â«omegaÂ»-Decen-1-ol
	Â«omegaÂ»-Decenol
Inchi:	InChI=1S/C10H20O/c1-2-3-4-5-6-7-8-9-10-11/h2,11H,1,3-10H2
InchiKey:	QGFSQVPRCWJZQK-UHFFFAOYSA-N
Formula:	C10H20O
SMILES:	C=CCCCCCCCCO
Mol. weight [g/mol]:	156.27
CAS:	13019-22-2

Physical Properties

Property code	Value	Unit	Source
gf	-15.66	kJ/mol	Joback Method
hf	-276.53	kJ/mol	Joback Method
hfus	24.46	kJ/mol	Joback Method
hvap	53.86	kJ/mol	Joback Method
log10ws	-3.13		Crippen Method
logp	2.895		Crippen Method
mcvol	153.330	ml/mol	McGowan Method
pc	2393.53	kPa	Joback Method
rinpol	1251.00		NIST Webbook
rinpol	1262.00		NIST Webbook
rinpol	1267.00		NIST Webbook
rinpol	1243.90		NIST Webbook
rinpol	1243.00		NIST Webbook
rinpol	1256.00		NIST Webbook
rinpol	1230.00		NIST Webbook
rinpol	1243.00		NIST Webbook
ripol	1828.00		NIST Webbook
ripol	1775.00		NIST Webbook
ripol	1813.00		NIST Webbook
tb	509.20	K	NIST Webbook

tc	678.10	K	Joback Method
tf	261.52	K	Joback Method
vc	0.596	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	361.84	J/mol×K	517.06	Joback Method
cpg	374.55	J/mol×K	543.90	Joback Method
cpg	386.74	J/mol×K	570.74	Joback Method
cpg	398.45	J/mol×K	597.58	Joback Method
cpg	409.67	J/mol×K	624.42	Joback Method
cpg	420.43	J/mol×K	651.26	Joback Method
cpg	430.75	J/mol×K	678.10	Joback Method
dvisc	0.0312210	Pa×s	261.52	Joback Method
dvisc	0.0065839	Pa×s	304.11	Joback Method
dvisc	0.0020352	Pa×s	346.70	Joback Method
dvisc	0.0008134	Pa×s	389.29	Joback Method
dvisc	0.0003895	Pa×s	431.88	Joback Method
dvisc	0.0002129	Pa×s	474.47	Joback Method
dvisc	0.0001285	Pa×s	517.06	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.58090e+01
Coeff. B	-4.77600e+03
Coeff. C	-8.24160e+01
Temperature range (K), min.	390.12
Temperature range (K), max.	537.38

Sources

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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13019222&Units=SI

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