2-Decen-1-ol

Other names:	2-Decenol
	Dec-2-en-1-ol
	Dec-2-enol
Inchi:	InChI=1S/C10H20O/c1-2-3-4-5-6-7-8-9-10-11/h8-9,11H,2-7,10H2,1H3/b9-8+
InchiKey:	QOPYYRPCXHTOQZ-CMDGGOBGSA-N
Formula:	C10H20O
SMILES:	CCCCCCCC=CCO
Mol. weight [g/mol]:	156.27
CAS:	22104-80-9

Physical Properties

Property code	Value	Unit	Source
gf	-23.28	kJ/mol	Joback Method
hf	-284.74	kJ/mol	Joback Method
hfus	25.95	kJ/mol	Joback Method
hvap	54.49	kJ/mol	Joback Method
log10ws	-3.13		Crippen Method
logp	2.895		Crippen Method
mcvol	153.330	ml/mol	McGowan Method
pc	2417.12	kPa	Joback Method
ripol	1806.00		NIST Webbook
ripol	1794.00		NIST Webbook
ripol	1812.00		NIST Webbook
tb	524.54	K	Joback Method
tc	689.26	K	Joback Method
tf	258.20	K	Joback Method
vc	0.595	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	362.81	J/mol×K	524.54	Joback Method
cpg	375.67	J/mol×K	551.99	Joback Method
cpg	387.98	J/mol×K	579.45	Joback Method

cpg	399.77	J/mol×K	606.90	Joback Method
cpg	411.06	J/mol×K	634.36	Joback Method
cpg	421.86	J/mol×K	661.81	Joback Method
cpg	432.20	J/mol×K	689.26	Joback Method
dvisc	0.0338296	Pa×s	258.20	Joback Method
dvisc	0.0063373	Pa×s	302.59	Joback Method
dvisc	0.0018223	Pa×s	346.98	Joback Method
dvisc	0.0006952	Pa×s	391.37	Joback Method
dvisc	0.0003228	Pa×s	435.76	Joback Method
dvisc	0.0001727	Pa×s	480.15	Joback Method
dvisc	0.0001027	Pa×s	524.54	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.47462e+01
Coeff. B	-4.42835e+03
Coeff. C	-8.14430e+01
Temperature range (K), min.	387.72
Temperature range (K), max.	550.81

Sources

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=C22104809&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

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