9-Dodecenol, trans

Other names:	(9E)-9-Dodecen-1-ol
	(E)-9-Dodecenyl alcohol
	(E)9-Dodecen-1-ol
	9-Dodecen-1-ol
	9-Dodecen-1-ol, (9E)-
	9-Dodecen-1-ol, (E)-
	9-Dodecenol, E
	trans-9-Dodecen-1-ol
Inchi:	InChI=1S/C12H24O/c1-2-3-4-5-6-7-8-9-10-11-12-13/h3-4,13H,2,5-12H2,1H3/b4-3+
InchiKey:	GJNNIRNIXNLOJP-ONEGZZNKSA-N
Formula:	C12H24O
SMILES:	CCC=CCCCCCCCCO
Mol. weight [g/mol]:	184.32
CAS:	35237-62-8

Physical Properties

Property code	Value	Unit	Source
gf	-6.44	kJ/mol	Joback Method
hf	-326.02	kJ/mol	Joback Method
hfus	31.13	kJ/mol	Joback Method
hvap	91.70	kJ/mol	NIST Webbook
log10ws	-3.96		Crippen Method
logp	3.676		Crippen Method
mcvol	181.510	ml/mol	McGowan Method
pc	2018.13	kPa	Joback Method
rinpol	1469.00		NIST Webbook
rinpol	1470.00		NIST Webbook
rinpol	1428.00		NIST Webbook
rinpol	1470.00		NIST Webbook
ripol	2043.00		NIST Webbook
ripol	2013.00		NIST Webbook
ripol	2013.00		NIST Webbook
ripol	1994.00		NIST Webbook
tb	570.30	K	Joback Method
tc	733.56	K	Joback Method
tf	280.74	K	Joback Method
vc	0.707	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	459.51	J/mol×K	570.30	Joback Method
cpg	473.74	J/mol×K	597.51	Joback Method
cpg	487.37	J/mol×K	624.72	Joback Method
cpg	500.43	J/mol×K	651.93	Joback Method
cpg	512.93	J/mol×K	679.14	Joback Method
cpg	524.90	J/mol×K	706.35	Joback Method
cpg	536.36	J/mol×K	733.56	Joback Method
dvisc	0.0209597	Pa×s	280.74	Joback Method
dvisc	0.0040712	Pa×s	329.00	Joback Method
dvisc	0.0012026	Pa×s	377.26	Joback Method
dvisc	0.0004685	Pa×s	425.52	Joback Method
dvisc	0.0002211	Pa×s	473.78	Joback Method
dvisc	0.0001199	Pa×s	522.04	Joback Method
dvisc	0.0000721	Pa×s	570.30	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.44974e+01
Coeff. B	-4.60063e+03
Coeff. C	-9.07560e+01
Temperature range (K), min.	414.52
Temperature range (K), max.	591.59

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=C35237628&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