1-Tetracosanol

Other names:	Lignoceric alcohol
	Lignocerol
	Lignoceryl alcohol
	Tetracosan-1-ol
	Tetracosanol
	Tetracosyl alcohol
Inchi:	InChI=1S/C24H50O/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-
InchiKey:	TYWMIZZBOVGFOV-UHFFFAOYSA-N
Formula:	C24H50O
SMILES:	CCCCCCCCCCCCCCCCCCCCCCCCO
Mol. weight [g/mol]:	354.66
CAS:	506-51-4

Physical Properties

Property code	Value	Unit	Source
af	1.2730		Cheméo Relay (1.0)
gf	14.38	kJ/mol	Joback Method
hf	-704.37	kJ/mol	Cheméo Relay (1.0)
hfus	62.00	kJ/mol	Joback Method
hvap	151.18	kJ/mol	Cheméo Relay (1.0)
ie	10.28	eV	Cheméo Relay (1.0)
log10ws	-8.65		Cheméo Relay (1.0)
logp	8.581		Crippen Method
mcvol	354.890	ml/mol	McGowan Method
pc	849.99	kPa	Joback Method
tb	637.35	K	Cheméo Relay (1.0)
tc	819.78	K	Cheméo Relay (1.0)
tf	349.44	K	Cheméo Relay (1.0)
vc	1.410	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1176.39	J/mol×K	840.70	Joback Method

cpg	1198.48	J/mol×K	872.47	Joback Method
cpg	1219.43	J/mol×K	904.24	Joback Method
cpg	1239.28	J/mol×K	936.01	Joback Method
cpg	1258.10	J/mol×K	967.78	Joback Method
cpg	1275.93	J/mol×K	999.54	Joback Method
cpg	1292.84	J/mol×K	1031.31	Joback Method
dvisc	0.0015101	Pa×s	421.06	Joback Method
dvisc	0.0003538	Pa×s	491.00	Joback Method
dvisc	0.0001190	Pa×s	560.94	Joback Method
dvisc	0.0000510	Pa×s	630.88	Joback Method
dvisc	0.0000259	Pa×s	700.82	Joback Method
dvisc	0.0000148	Pa×s	770.76	Joback Method
dvisc	0.0000093	Pa×s	840.70	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.51348e+01
Coeff. B	-5.91214e+03
Coeff. C	-1.28800e+02
Temperature range (K), min.	527.00
Temperature range (K), max.	730.65

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C506514&Units=SI

Joback Method: https://en.wikipedia.org/wiki/Joback_method

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

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Cheméo Relay (1.0):

Cheméo Relay (1.0, beta):

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
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
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