Phenol, 4-octyl-

Other names:	1-(p-Hydroxyphenyl)octane
	4-Octylphenol
	4-n-Octylphenol
	Phenol, p-octyl-
	p-Octylphenol
Inchi:	InChI=1S/C14H22O/c1-2-3-4-5-6-7-8-13-9-11-14(15)12-10-13/h9-12,15H,2-8H2,1H3
InchiKey:	NTDQQZYCCIDJRK-UHFFFAOYSA-N
Formula:	C14H22O
SMILES:	CCCCCCCCc1ccc(O)cc1
Mol. weight [g/mol]:	206.32
CAS:	1806-26-4

Physical Properties

Property code	Value	Unit	Source
gf	24.79	kJ/mol	Joback Method
hf	-273.07	kJ/mol	Joback Method
hfus	31.84	kJ/mol	Joback Method
hvap	62.05	kJ/mol	Joback Method
log10ws	-4.33		Crippen Method
logp	4.295		Crippen Method
mcvol	190.230	ml/mol	McGowan Method
pc	2306.95	kPa	Joback Method
rinpol	1809.00		NIST Webbook
rinpol	1768.10		NIST Webbook
rinpol	1768.10		NIST Webbook
rinpol	1772.30		NIST Webbook
rinpol	1778.20		NIST Webbook
rinpol	1784.00		NIST Webbook
tb	627.02	K	Joback Method
tc	831.64	K	Joback Method
tf	385.68	K	Joback Method
vc	0.677	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	505.42	J/mol×K	627.02	Joback Method
cpg	521.77	J/mol×K	661.12	Joback Method
cpg	537.19	J/mol×K	695.23	Joback Method
cpg	551.75	J/mol×K	729.33	Joback Method
cpg	565.52	J/mol×K	763.43	Joback Method
cpg	578.57	J/mol×K	797.54	Joback Method
cpg	590.99	J/mol×K	831.64	Joback Method
dvisc	0.0015682	Pa×s	385.68	Joback Method
dvisc	0.0005642	Pa×s	425.90	Joback Method
dvisc	0.0002421	Pa×s	466.13	Joback Method
dvisc	0.0001189	Pa×s	506.35	Joback Method
dvisc	0.0000648	Pa×s	546.57	Joback Method
dvisc	0.0000384	Pa×s	586.80	Joback Method
dvisc	0.0000243	Pa×s	627.02	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.43500e+01
Coeff. B	-4.51024e+03
Coeff. C	-9.12700e+01
Temperature range (K), min.	412.00
Temperature range (K), max.	590.27

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

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