Pentane, 1,1,1,5-tetrachloro-

Other names: 1,1,1,5-Tetrachloropentane
Inchi: InChI=1S/C5H8Cl4/c6-4-2-1-3-5(7,8)9/h1-4H2
InchiKey: VZEWJVRACUZHQR-UHFFFAOYSA-N
Formula: C5H8Cl4
SMILES: ClCCCCC(Cl)(Cl)Cl
Mol. weight [g/mol]: 209.93
CAS: 2467-10-9

Physical Properties

Property code	Value	Unit	Source
gf	-53.66	kJ/mol	Joback Method
hf	-218.24	kJ/mol	Joback Method
hfus	18.08	kJ/mol	Joback Method
hvap	42.97	kJ/mol	Joback Method
log10ws	-3.63		Crippen Method
logp	3.766		Crippen Method
mcvol	130.270	ml/mol	McGowan Method
pc	2995.87	kPa	Joback Method
rinpol	1211.00		NIST Webbook
rinpol	1220.00		NIST Webbook
rinpol	1211.00		NIST Webbook
tb	460.29	K	Joback Method
tc	668.54	K	Joback Method
tf	268.21	K	Joback Method
vc	0.500	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	270.30	J/mol×K	668.54	Joback Method
cpg	225.21	J/mol×K	460.29	Joback Method
cpg	234.22	J/mol×K	495.00	Joback Method
cpg	242.58	J/mol×K	529.71	Joback Method
cpg	250.32	J/mol×K	564.42	Joback Method

cpg	257.50	J/mol×K	599.12	Joback Method
cpg	264.15	J/mol×K	633.83	Joback Method
dvisc	0.0003739	Pa×s	460.29	Joback Method
dvisc	0.0053237	Pa×s	268.21	Joback Method
dvisc	0.0027007	Pa×s	300.22	Joback Method
dvisc	0.0015615	Pa×s	332.24	Joback Method
dvisc	0.0009941	Pa×s	364.25	Joback Method
dvisc	0.0006807	Pa×s	396.26	Joback Method
dvisc	0.0004933	Pa×s	428.28	Joback Method
hvapt	61.70	kJ/mol	386.00	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.49623e+01
Coeff. B	-4.22683e+03
Coeff. C	-7.59800e+01
Temperature range (K), min.	364.01
Temperature range (K), max.	513.96

Sources

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C2467109&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

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

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
hvapt:	Enthalpy of vaporization at a given temperature
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