1-Pentene, 4-chloro-

Other names: 4-Chloro-1-pentene
Inchi: InChI=1S/C5H9Cl/c1-3-4-5(2)6/h3,5H,1,4H2,2H3
InchiKey: BIGJOILKRSNJMQ-UHFFFAOYSA-N
Formula: C5H9Cl
SMILES: C=CCC(C)Cl
Mol. weight [g/mol]: 104.58
CAS: 10524-08-0

Physical Properties

Property code	Value	Unit	Source
gf	64.69	kJ/mol	Joback Method
hf	-42.12	kJ/mol	Joback Method
hfus	8.10	kJ/mol	Joback Method
hvap	30.05	kJ/mol	Joback Method
log10ws	-2.03		Crippen Method
logp	2.190		Crippen Method
mcvol	89.250	ml/mol	McGowan Method
pc	3522.09	kPa	Joback Method
rinpol	700.00		NIST Webbook
tb	347.47	K	Joback Method
tc	528.00	K	Joback Method
tf	159.27	K	Joback Method
vc	0.340	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	137.93	J/mol×K	347.47	Joback Method
cpg	146.57	J/mol×K	377.56	Joback Method
cpg	154.83	J/mol×K	407.65	Joback Method
cpg	162.72	J/mol×K	437.74	Joback Method
cpg	170.25	J/mol×K	467.83	Joback Method
cpg	177.44	J/mol×K	497.91	Joback Method
cpg	184.29	J/mol×K	528.00	Joback Method

dvisc	0.0062892	Pa×s	159.27	Joback Method
dvisc	0.0024182	Pa×s	190.64	Joback Method
dvisc	0.0012181	Pa×s	222.00	Joback Method
dvisc	0.0007271	Pa×s	253.37	Joback Method
dvisc	0.0004863	Pa×s	284.74	Joback Method
dvisc	0.0003523	Pa×s	316.10	Joback Method
dvisc	0.0002705	Pa×s	347.47	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.43048e+01
Coeff. B	-3.22492e+03
Coeff. C	-4.40520e+01
Temperature range (K), min.	274.12
Temperature range (K), max.	402.64

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C10524080&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

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