Naphthalene, 1-chloro-2-methyl-

Other names: 1-Chloro-2-methylnaphthalene
Inchi: InChI=1S/C11H9Cl/c1-8-6-7-9-4-2-3-5-10(9)11(8)12/h2-7H,1H3
InchiKey: MNCMVFFWMBXFLK-UHFFFAOYSA-N
Formula: C11H9Cl
SMILES: Cc1ccc2ccccc2c1Cl
Mol. weight [g/mol]: 176.64
CAS: 5859-45-0

Physical Properties

Property code	Value	Unit	Source
gf	229.61	kJ/mol	Joback Method
hf	118.55	kJ/mol	Joback Method
hfus	18.73	kJ/mol	Joback Method
hvap	49.70	kJ/mol	Joback Method
log10ws	-4.44		Crippen Method
logp	3.802		Crippen Method
mcvol	134.870	ml/mol	McGowan Method
pc	3210.04	kPa	Joback Method
rinpol	1475.30		NIST Webbook
rinpol	1475.30		NIST Webbook
tb	544.13	K	Joback Method
tc	784.89	K	Joback Method
tf	327.81	K	Joback Method
vc	0.514	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	277.43	J/mol×K	544.13	Joback Method
cpg	290.33	J/mol×K	584.26	Joback Method
cpg	302.26	J/mol×K	624.38	Joback Method
cpg	313.29	J/mol×K	664.51	Joback Method
cpg	323.48	J/mol×K	704.64	Joback Method
cpg	332.90	J/mol×K	744.77	Joback Method

cpg	341.64	J/mol×K	784.89	Joback Method
dvisc	0.0013413	Pa×s	327.81	Joback Method
dvisc	0.0009472	Pa×s	363.86	Joback Method
dvisc	0.0007122	Pa×s	399.92	Joback Method
dvisc	0.0005614	Pa×s	435.97	Joback Method
dvisc	0.0004589	Pa×s	472.02	Joback Method
dvisc	0.0003860	Pa×s	508.08	Joback Method
dvisc	0.0003322	Pa×s	544.13	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.42441e+01
Coeff. B	-4.48838e+03
Coeff. C	-9.81230e+01
Temperature range (K), min.	419.72
Temperature range (K), max.	600.59

Sources

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=C5859450&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

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