2,9-dichlorodecane

Inchi: InChI=1S/C10H20Cl2/c1-9(11)7-5-3-4-6-8-10(2)12/h9-10H,3-8H2,1-2H3
InchiKey: PYKAEXCBSVWRNZ-UHFFFAOYSA-N
Formula: C10H20Cl2
SMILES: CC(Cl)CCCCCCC(C)Cl
Mol. weight [g/mol]: 211.17
CAS: ---

Physical Properties

Property code	Value	Unit	Source
gf	4.58	kJ/mol	Joback Method
hf	-291.77	kJ/mol	Joback Method
hfus	23.00	kJ/mol	Joback Method
hvap	45.85	kJ/mol	Joback Method
log10ws	-4.54		Crippen Method
logp	4.582		Crippen Method
mcvol	176.240	ml/mol	McGowan Method
pc	2000.12	kPa	Joback Method
ripol	1752.00		NIST Webbook
ripol	1748.00		NIST Webbook
ripol	1752.00		NIST Webbook
ripol	1748.00		NIST Webbook
tb	502.18	K	Joback Method
tc	683.82	K	Joback Method
tf	232.30	K	Joback Method
vc	0.681	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	380.69	J/mol×K	502.18	Joback Method
cpg	395.59	J/mol×K	532.45	Joback Method
cpg	409.82	J/mol×K	562.73	Joback Method
cpg	423.40	J/mol×K	593.00	Joback Method
cpg	436.35	J/mol×K	623.27	Joback Method

cpg	448.68	J/mol×K	653.54	Joback Method
cpg	460.42	J/mol×K	683.82	Joback Method
dvisc	0.0106207	Pa×s	232.30	Joback Method
dvisc	0.0033082	Pa×s	277.28	Joback Method
dvisc	0.0014270	Pa×s	322.26	Joback Method
dvisc	0.0007564	Pa×s	367.24	Joback Method
dvisc	0.0004605	Pa×s	412.22	Joback Method
dvisc	0.0003091	Pa×s	457.20	Joback Method
dvisc	0.0002228	Pa×s	502.18	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.39931e+01
Coeff. B	-4.23229e+03
Coeff. C	-8.49180e+01
Temperature range (K), min.	393.72
Temperature range (K), max.	572.42

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=R295744&Units=SI

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