1,7-dichlorodecane

Inchi: InChI=1S/C10H20Cl2/c1-2-7-10(12)8-5-3-4-6-9-11/h10H,2-9H2,1H3
InchiKey: GMGZBQXTGAZEBV-UHFFFAOYSA-N
Formula: C10H20Cl2
SMILES: CCCC(Cl)CCCCCCCl
Mol. weight [g/mol]: 211.17
CAS: ---

Physical Properties

Property code	Value	Unit	Source
gf	7.02	kJ/mol	Joback Method
hf	-286.49	kJ/mol	Joback Method
hfus	26.53	kJ/mol	Joback Method
hvap	46.24	kJ/mol	Joback Method
log10ws	-4.43		Crippen Method
logp	4.583		Crippen Method
mcvol	176.240	ml/mol	McGowan Method
pc	1985.89	kPa	Joback Method
ripol	1806.00		NIST Webbook
ripol	1802.00		NIST Webbook
tb	502.62	K	Joback Method
tc	680.58	K	Joback Method
tf	247.30	K	Joback Method
vc	0.688	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	380.49	J/mol×K	502.62	Joback Method
cpg	395.02	J/mol×K	532.28	Joback Method
cpg	408.92	J/mol×K	561.94	Joback Method
cpg	422.19	J/mol×K	591.60	Joback Method
cpg	434.87	J/mol×K	621.26	Joback Method
cpg	446.96	J/mol×K	650.92	Joback Method
cpg	458.49	J/mol×K	680.58	Joback Method

dvisc	0.0067379	Pa×s	247.30	Joback Method
dvisc	0.0025564	Pa×s	289.85	Joback Method
dvisc	0.0012431	Pa×s	332.41	Joback Method
dvisc	0.0007119	Pa×s	374.96	Joback Method
dvisc	0.0004568	Pa×s	417.51	Joback Method
dvisc	0.0003182	Pa×s	460.07	Joback Method
dvisc	0.0002356	Pa×s	502.62	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.46416e+01
Coeff. B	-4.49999e+03
Coeff. C	-8.74200e+01
Temperature range (K), min.	400.92
Temperature range (K), max.	569.73

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=R295704&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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume