Cyclohexane, 1,3-dichloro-, trans-

Other names:	trans-1,3-Dichlorocyclohexane
	(E)-1,3-Dichlorocyclohexane
Inchi:	InChI=1S/C6H10Cl2/c7-5-2-1-3-6(8)4-5/h5-6H,1-4H2/t5-,6-/m0/s1
InchiKey:	HXWLCXAXTOJPJL-WDSKDSINSA-N
Formula:	C6H10Cl2
SMILES:	ClC1CCCC(Cl)C1
Mol. weight [g/mol]:	153.05
CAS:	24955-62-2

Physical Properties

Property code	Value	Unit	Source
gf	-7.48	kJ/mol	Joback Method
hf	-164.67	kJ/mol	Joback Method
hfus	12.60	kJ/mol	Joback Method
hvap	37.84	kJ/mol	Joback Method
log10ws	-2.76		Crippen Method
logp	2.775		Crippen Method
mcvol	109.020	ml/mol	McGowan Method
pc	3476.55	kPa	Joback Method
rinpol	1049.00		NIST Webbook
rinpol	1048.00		NIST Webbook
rinpol	1048.00		NIST Webbook
rinpol	1048.00		NIST Webbook
tb	426.42	K	Joback Method
tc	646.96	K	Joback Method
tf	220.36	K	Joback Method
vc	0.402	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	192.32	J/mol×K	426.42	Joback Method
cpg	206.66	J/mol×K	463.18	Joback Method
cpg	220.23	J/mol×K	499.93	Joback Method

cpg	233.04	J/mol×K	536.69	Joback Method
cpg	245.11	J/mol×K	573.44	Joback Method
cpg	256.46	J/mol×K	610.20	Joback Method
cpg	267.11	J/mol×K	646.96	Joback Method
dvisc	0.0039986	Pa×s	220.36	Joback Method
dvisc	0.0020466	Pa×s	254.70	Joback Method
dvisc	0.0012282	Pa×s	289.05	Joback Method
dvisc	0.0008215	Pa×s	323.39	Joback Method
dvisc	0.0005936	Pa×s	357.73	Joback Method
dvisc	0.0004540	Pa×s	392.08	Joback Method
dvisc	0.0003626	Pa×s	426.42	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C24955622&Units=SI
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
log10ws: Log10 of Water solubility in mol/l
logp: Octanol/Water partition coefficient
mcvol: McGowan's characteristic volume
pc: Critical Pressure
rinpol: Non-polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume