

Cyclohexane, 1,2-dichloro-, cis-

Other names:	1,2-Dichlorocyclohexane, (Z)- cis-1,2-Dichlorocyclohexane
Inchi:	InChI=1S/C6H10Cl2/c7-5-3-1-2-4-6(5)8/h5-6H,1-4H2/t5-,6+
InchiKey:	GZEZIBFVJYNETN-OLQVQODUSA-N
Formula:	C6H10Cl2
SMILES:	C1C1CCCCC1Cl
Mol. weight [g/mol]:	153.05
CAS:	10498-35-8

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	1092.00		NIST Webbook
rinpol	1092.00		NIST Webbook
rinpol	1094.00		NIST Webbook
rinpol	1092.00		NIST Webbook
tb	480.10	K	NIST Webbook
tc	646.96	K	Joback Method
tf	268.00 ± 3.00	K	NIST Webbook
vc	0.402	m ³ /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	Paxs	220.36	Joback Method
dvisc	0.0020466	Paxs	254.70	Joback Method
dvisc	0.0012282	Paxs	289.05	Joback Method
dvisc	0.0008215	Paxs	323.39	Joback Method
dvisc	0.0005936	Paxs	357.73	Joback Method
dvisc	0.0004540	Paxs	392.08	Joback Method
dvisc	0.0003626	Paxs	426.42	Joback Method
hvapt	45.80	kJ/mol	422.00	NIST Webbook

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	364.20	K	2.70	NIST Webbook
tbrp	348.50 ± 0.50	K	0.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.81461e+01
Coeff. B	-5.93058e+03
Coeff. C	-1.62490e+01
Temperature range (K), min.	348.34
Temperature range (K), max.	478.33

Sources

Crippen Method: <http://pubs.acs.org/doi/abs/10.1021/ci9903071>

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=C10498358&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
hvapt:	Enthalpy of vaporization at a given temperature
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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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