Cyclohexene, 1,6-dimethyl-

Other names: 1,6-Dimethylcyclohexene
Inchi: InChI=1S/C8H14/c1-7-5-3-4-6-8(7)2/h5,8H,3-4,6H2,1-2H3
InchiKey: AXKAIBQIFBAAMK-UHFFFAOYSA-N
Formula: C8H14
SMILES: CC1=CCCCC1C
Mol. weight [g/mol]: 110.20
CAS: 1759-64-4

Physical Properties

Property code	Value	Unit	Source
gf	61.26	kJ/mol	Joback Method
hf	-107.82	kJ/mol	Joback Method
hfus	9.14	kJ/mol	Joback Method
hvap	34.79	kJ/mol	Joback Method
log10ws	-2.68		Crippen Method
logp	2.753		Crippen Method
mcvol	108.420	ml/mol	McGowan Method
pc	3228.31	kPa	Joback Method
rinpol	838.00		NIST Webbook
tb	398.00 ± 8.00	K	NIST Webbook
tc	610.71	K	Joback Method
tf	200.58	K	Joback Method
vc	0.403	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	201.81	J/mol×K	406.13	Joback Method
cpg	217.51	J/mol×K	440.23	Joback Method
cpg	232.47	J/mol×K	474.32	Joback Method
cpg	246.71	J/mol×K	508.42	Joback Method
cpg	260.26	J/mol×K	542.51	Joback Method
cpg	273.11	J/mol×K	576.61	Joback Method
cpg	285.31	J/mol×K	610.71	Joback Method

dvisc	0.0034105	Pa×s	200.58	Joback Method
dvisc	0.0015996	Pa×s	234.84	Joback Method
dvisc	0.0009098	Pa×s	269.10	Joback Method
dvisc	0.0005878	Pa×s	303.36	Joback Method
dvisc	0.0004149	Pa×s	337.61	Joback Method
dvisc	0.0003123	Pa×s	371.87	Joback Method
dvisc	0.0002466	Pa×s	406.13	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.43645e+01
Coeff. B	-3.30337e+03
Coeff. C	-5.90590e+01
Temperature range (K), min.	293.73
Temperature range (K), max.	423.95

Sources

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=C1759644&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
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