Cyclohexene, 1,5-dimethyl-

Other names: 1,5-dimethylcyclohexene
Inchi: InChI=1S/C8H14/c1-7-4-3-5-8(2)6-7/h4,8H,3,5-6H2,1-2H3
InchiKey: QOSLKKIVSIPIFE-UHFFFAOYSA-N
Formula: C8H14
SMILES: CC1=CCCC(C)C1
Mol. weight [g/mol]: 110.20
CAS: 2808-77-7

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	825.00		NIST Webbook
rinpol	829.00		NIST Webbook
rinpol	825.00		NIST Webbook
tb	402.00 ± 4.00	K	NIST Webbook
tb	398.00 ± 4.00	K	NIST Webbook
tb	400.80 ± 2.00	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	1.37449e+01
Coeff. B	-3.13526e+03
Coeff. C	-5.84700e+01
Temperature range (K), min.	291.45
Temperature range (K), max.	430.23

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C2808777&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

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