Cyclohexane, 1,1'-(1,3-propanediyl)bis-

Other names:	1,3-Dicyclohexylpropane
	Propane, 1,3-dicyclohexyl-
Inchi:	InChI=1S/C15H28/c1-3-8-14(9-4-1)12-7-13-15-10-5-2-6-11-15/h14-15H,1-13H2
InchiKey:	LIQIPWNPFZCAIQ-UHFFFAOYSA-N
Formula:	C15H28
SMILES:	C1CCC(CCCC2CCCCC2)CC1
Mol. weight [g/mol]:	208.38
CAS:	3178-24-3

Physical Properties

Property code	Value	Unit	Source
chl	-9637.00	kJ/mol	NIST Webbook
chl	-9017.00	kJ/mol	NIST Webbook
gf	124.32	kJ/mol	Joback Method
hf	-244.29	kJ/mol	Joback Method
hfus	18.28	kJ/mol	Joback Method
hvap	49.84	kJ/mol	Joback Method
log10ws	-5.41		Crippen Method
logp	5.317		Crippen Method
mcvol	200.490	ml/mol	McGowan Method
pc	1978.82	kPa	Joback Method
tb	563.00 ± 5.00	K	NIST Webbook
tb	563.00 ± 5.00	K	NIST Webbook
tb	565.00 ± 5.00	K	NIST Webbook
tb	564.84 ± 0.30	K	NIST Webbook
tc	801.28	K	Joback Method
tf	258.33 ± 1.00	K	NIST Webbook
tf	243.00 ± 6.00	K	NIST Webbook
tf	258.33 ± 0.20	K	NIST Webbook
vc	0.742	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	545.06	J/mol×K	581.70	Joback Method
cpg	571.75	J/mol×K	618.30	Joback Method
cpg	596.82	J/mol×K	654.89	Joback Method
cpg	620.31	J/mol×K	691.49	Joback Method
cpg	642.28	J/mol×K	728.09	Joback Method
cpg	662.79	J/mol×K	764.68	Joback Method
cpg	681.89	J/mol×K	801.28	Joback Method
dvisc	0.0088135	Pa×s	273.57	Joback Method
dvisc	0.0028217	Pa×s	324.93	Joback Method
dvisc	0.0012328	Pa×s	376.28	Joback Method
dvisc	0.0006571	Pa×s	427.63	Joback Method
dvisc	0.0004009	Pa×s	478.99	Joback Method
dvisc	0.0002691	Pa×s	530.35	Joback Method
dvisc	0.0001938	Pa×s	581.70	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.39335e+01
Coeff. B	-4.34754e+03
Coeff. C	-9.81230e+01
Temperature range (K), min.	416.72
Temperature range (K), max.	602.36

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=C3178243&Units=SI

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

Legend

chl:	Standard liquid enthalpy of combustion
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume