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

Other names: 1,3-Dicyclohexylbutane
Inchi: InChI=1S/C16H30/c1-14(16-10-6-3-7-11-16)12-13-15-8-4-2-5-9-15/h14-16H,2-13H2,1H3
InchiKey: QYUDFQUDLLTCAA-UHFFFAOYSA-N
Formula: C16H30
SMILES: CC(CCC1CCCCC1)C1CCCCC1
Mol. weight [g/mol]: 222.41
CAS: 41851-35-8

Physical Properties

Property code	Value	Unit	Source
chl	-10220.00	kJ/mol	NIST Webbook
gf	130.30	kJ/mol	Joback Method
hf	-270.21	kJ/mol	Joback Method
hfus	17.34	kJ/mol	Joback Method
hvap	51.68	kJ/mol	Joback Method
log10ws	-5.58		Crippen Method
logp	5.563		Crippen Method
mcvol	214.580	ml/mol	McGowan Method
pc	1832.54	kPa	Joback Method
tb	576.34 ± 0.30	K	NIST Webbook
tc	824.40	K	Joback Method
tf	269.84	K	Joback Method
vc	0.791	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	601.49	J/mol×K	604.14	Joback Method
cpg	741.10	J/mol×K	824.40	Joback Method
cpg	721.69	J/mol×K	787.69	Joback Method
cpg	700.82	J/mol×K	750.98	Joback Method
cpg	678.42	J/mol×K	714.27	Joback Method
cpg	654.44	J/mol×K	677.56	Joback Method
cpg	628.82	J/mol×K	640.85	Joback Method

cpl	359.40	J/mol×K	313.00	NIST Webbook
dvisc	0.0001627	Pa×s	604.14	Joback Method
dvisc	0.0002317	Pa×s	548.42	Joback Method
dvisc	0.0003575	Pa×s	492.71	Joback Method
dvisc	0.0006161	Pa×s	436.99	Joback Method
dvisc	0.0012448	Pa×s	381.27	Joback Method
dvisc	0.0031999	Pa×s	325.56	Joback Method
dvisc	0.0121478	Pa×s	269.84	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.39762e+01
Coeff. B	-4.44468e+03
Coeff. C	-1.01373e+02
Temperature range (K), min.	426.07
Temperature range (K), max.	614.34

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C41851358&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

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

Legend

chl: Standard liquid enthalpy of combustion

cpg: Ideal gas heat capacity

cpl: Liquid phase 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