Cyclohexane, 1,1'-(1,2-ethanediyl)bis-

Other names:	1,2-Dicyclohexylethane
	Ethane, 1,2-dicyclohexyl-
Inchi:	InChI=1S/C14H26/c1-3-7-13(8-4-1)11-12-14-9-5-2-6-10-14/h13-14H,1-12H2
InchiKey:	IBLVSWYGUFGDMF-UHFFFAOYSA-N
Formula:	C14H26
SMILES:	C1CCC(CCC2CCCCC2)CC1
Mol. weight [g/mol]:	194.36
CAS:	3321-50-4

Physical Properties

Property code	Value	Unit	Source
chl	-8347.00	kJ/mol	NIST Webbook
chl	-8842.90 ± 8.80	kJ/mol	NIST Webbook
gf	115.90	kJ/mol	Joback Method
hf	-223.65	kJ/mol	Joback Method
hfus	15.69	kJ/mol	Joback Method
hvap	47.62	kJ/mol	Joback Method
log10ws	-4.99		Crippen Method
logp	4.927		Crippen Method
mcvol	186.400	ml/mol	McGowan Method
pc	2159.31	kPa	Joback Method
rinpol	1496.30		NIST Webbook
rinpol	1495.00		NIST Webbook
rinpol	1496.30		NIST Webbook
rinpol	1501.00		NIST Webbook
rinpol	1496.30		NIST Webbook
rinpol	1486.90		NIST Webbook
rinpol	1498.00		NIST Webbook
rinpol	1529.00		NIST Webbook
rinpol	1544.00		NIST Webbook
rinpol	1501.00		NIST Webbook
rinpol	1507.00		NIST Webbook
rinpol	1515.00		NIST Webbook
rinpol	1490.00		NIST Webbook
rinpol	1496.30		NIST Webbook
rinpol	1495.00		NIST Webbook
rinpol	1486.90		NIST Webbook

rinpol	1490.00		NIST Webbook
tb	544.00 ± 5.00	K	NIST Webbook
tb	544.00 ± 5.00	K	NIST Webbook
tb	548.00 ± 5.00	K	NIST Webbook
tb	537.00 ± 8.00	K	NIST Webbook
tb	546.00 ± 5.00	K	NIST Webbook
tb	547.53 ± 0.30	K	NIST Webbook
tc	782.43	K	Joback Method
tf	284.65 ± 0.50	K	NIST Webbook
tf	284.70 ± 1.00	K	NIST Webbook
tf	284.60 ± 0.20	K	NIST Webbook
tf	284.60 ± 0.30	K	NIST Webbook
vc	0.685	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	490.25	J/mol×K	558.82	Joback Method
cpg	516.84	J/mol×K	596.09	Joback Method
cpg	541.80	J/mol×K	633.36	Joback Method
cpg	565.18	J/mol×K	670.62	Joback Method
cpg	587.04	J/mol×K	707.89	Joback Method
cpg	607.43	J/mol×K	745.16	Joback Method
cpg	626.40	J/mol×K	782.43	Joback Method
cpl	367.80	J/mol×K	313.00	NIST Webbook
dvisc	0.0095472	Pa×s	262.30	Joback Method
dvisc	0.0030698	Pa×s	311.72	Joback Method
dvisc	0.0013465	Pa×s	361.14	Joback Method
dvisc	0.0007202	Pa×s	410.56	Joback Method
dvisc	0.0004407	Pa×s	459.98	Joback Method
dvisc	0.0002966	Pa×s	509.40	Joback Method
dvisc	0.0002141	Pa×s	558.82	Joback Method
hvapt	65.40	kJ/mol	386.50	NIST Webbook

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	416.00 ± 1.00	K	2.00	NIST Webbook

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=C3321504&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
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
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
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