Cyclohexane, 1,1'-hexylidenebis-

Other names: 1,1-Dicyclohexylhexane
Inchi: InChI=1S/C18H34/c1-2-3-6-15-18(16-11-7-4-8-12-16)17-13-9-5-10-14-17/h16-18H,2-15H
InchiKey: QDXQNQHDJRBQIE-UHFFFAOYSA-N
Formula: C18H34
SMILES: CCCCCC(C1CCCCC1)C1CCCCC1
Mol. weight [g/mol]: 250.46
CAS: 55030-20-1

Physical Properties

Property code	Value	Unit	Source
chs	-11560.00	kJ/mol	NIST Webbook
gf	147.14	kJ/mol	Joback Method
hf	-311.49	kJ/mol	Joback Method
hfus	22.52	kJ/mol	Joback Method
hvap	56.13	kJ/mol	Joback Method
log10ws	-6.42		Crippen Method
logp	6.344		Crippen Method
mcvol	242.760	ml/mol	McGowan Method
pc	1564.75	kPa	Joback Method
tb	589.00 ± 3.00	K	NIST Webbook
tc	862.73	K	Joback Method
tf	276.54 ± 0.20	K	NIST Webbook
tf	281.90 ± 0.80	K	NIST Webbook
vc	0.903	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	717.53	J/mol×K	649.90	Joback Method
cpg	836.93	J/mol×K	827.26	Joback Method
cpg	816.16	J/mol×K	791.79	Joback Method
cpg	793.89	J/mol×K	756.32	Joback Method
cpg	770.07	J/mol×K	720.84	Joback Method
cpg	744.64	J/mol×K	685.37	Joback Method

cpg	856.26	J/mol×K	862.73	Joback Method
dvisc	0.0001286	Pa×s	649.90	Joback Method
dvisc	0.0001836	Pa×s	590.31	Joback Method
dvisc	0.0002840	Pa×s	530.73	Joback Method
dvisc	0.0004903	Pa×s	471.14	Joback Method
dvisc	0.0009915	Pa×s	411.55	Joback Method
dvisc	0.0025451	Pa×s	351.97	Joback Method
dvisc	0.0095938	Pa×s	292.38	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.42797e+01
Coeff. B	-4.66602e+03
Coeff. C	-1.06046e+02
Temperature range (K), min.	439.52
Temperature range (K), max.	626.33

Sources

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C55030201&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

chs: Standard solid 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