Cyclohexane, 1,1'-propylidenebis-

Other names: 1,1-Dicyclohexylpropane
Inchi: InChI=1S/C15H28/c1-2-15(13-9-5-3-6-10-13)14-11-7-4-8-12-14/h13-15H,2-12H2,1H3
InchiKey: ROFWOEQFASWFTK-UHFFFAOYSA-N
Formula: C15H28
SMILES: CCC(C1CCCCC1)C1CCCCC1
Mol. weight [g/mol]: 208.38
CAS: 54934-91-7

Physical Properties

Property code	Value	Unit	Source
chs	-8954.00	kJ/mol	NIST Webbook
gf	121.88	kJ/mol	Joback Method
hf	-249.57	kJ/mol	Joback Method
hfus	14.75	kJ/mol	Joback Method
hvap	49.45	kJ/mol	Joback Method
log10ws	-5.17		Crippen Method
logp	5.173		Crippen Method
mcvol	200.490	ml/mol	McGowan Method
pc	1992.98	kPa	Joback Method
tb	556.71 ± 0.30	K	NIST Webbook
tb	544.00 ± 6.00	K	NIST Webbook
tb	544.00 ± 6.00	K	NIST Webbook
tb	555.46 ± 1.00	K	NIST Webbook
tc	805.62	K	Joback Method
tf	249.69 ± 0.30	K	NIST Webbook
tf	249.69 ± 1.00	K	NIST Webbook
tf	244.84 ± 0.40	K	NIST Webbook
tf	249.69 ± 0.50	K	NIST Webbook
vc	0.736	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	545.31	J/mol×K	581.26	Joback Method

cpg	665.45	J/mol×K	768.22	Joback Method
cpg	644.61	J/mol×K	730.83	Joback Method
cpg	622.24	J/mol×K	693.44	Joback Method
cpg	598.27	J/mol×K	656.05	Joback Method
cpg	572.64	J/mol×K	618.65	Joback Method
cpg	684.81	J/mol×K	805.62	Joback Method
dvisc	0.0001814	Pa×s	581.26	Joback Method
dvisc	0.0002580	Pa×s	527.48	Joback Method
dvisc	0.0003976	Pa×s	473.70	Joback Method
dvisc	0.0006845	Pa×s	419.91	Joback Method
dvisc	0.0013823	Pa×s	366.13	Joback Method
dvisc	0.0035561	Pa×s	312.35	Joback Method
dvisc	0.0135528	Pa×s	258.57	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.39240e+01
Coeff. B	-4.28800e+03
Coeff. C	-9.59150e+01
Temperature range (K), min.	410.37
Temperature range (K), max.	593.80

Sources

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C54934917&Units=SI

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