

Cyclohexane, 1,1'-(2-propyl-1,3-propanediyl)bis-

Inchi:	InChI=1S/C18H34/c1-2-9-18(14-16-10-5-3-6-11-16)15-17-12-7-4-8-13-17/h16-18H,2-15H
InchiKey:	FJWJSIOKRYZXGL-UHFFFAOYSA-N
Formula:	C18H34
SMILES:	CCCC(CC1CCCCC1)CC1CCCCC1
Mol. weight [g/mol]:	250.46
CAS:	55030-21-2

Physical Properties

Property code	Value	Unit	Source
chl	-10840.00	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	589.30 ± 0.30	K	NIST Webbook
tc	862.73	K	Joback Method
tf	292.38	K	Joback Method
vc	0.903	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	717.53	J/molxK	649.90	Joback Method
cpg	744.64	J/molxK	685.37	Joback Method
cpg	770.07	J/molxK	720.84	Joback Method
cpg	793.89	J/molxK	756.32	Joback Method
cpg	816.16	J/molxK	791.79	Joback Method
cpg	836.93	J/molxK	827.26	Joback Method
cpg	856.26	J/molxK	862.73	Joback Method
dvisc	0.0095938	Paxs	292.38	Joback Method

dvisc	0.0025451	Paxs	351.97	Joback Method
dvisc	0.0009915	Paxs	411.55	Joback Method
dvisc	0.0004903	Paxs	471.14	Joback Method
dvisc	0.0002840	Paxs	530.73	Joback Method
dvisc	0.0001836	Paxs	590.31	Joback Method
dvisc	0.0001286	Paxs	649.90	Joback Method

Sources

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=C55030212&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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