

# 1,2-Dicyclohexylbutane

<b>Other names:</b>	Cyclohexane, 1,1'-(1-ethyl-1,2-ethanediyl)bis-
<b>Inchi:</b>	InChI=1S/C16H30/c1-2-15(16-11-7-4-8-12-16)13-14-9-5-3-6-10-14/h14-16H,2-13H2,1H3
<b>InchiKey:</b>	FZTGIATXIYRIIE-UHFFFAOYSA-N
<b>Formula:</b>	C16H30
<b>SMILES:</b>	CCC(CC1CCCCC1)C1CCCCC1
<b>Mol. weight [g/mol]:</b>	222.41
<b>CAS:</b>	54890-01-6

## Physical Properties

Property code	Value	Unit	Source
chs	-10260.00	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	604.14	K	Joback Method
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/molxK	604.14	Joback Method
cpg	628.82	J/molxK	640.85	Joback Method
cpg	654.44	J/molxK	677.56	Joback Method
cpg	678.42	J/molxK	714.27	Joback Method
cpg	700.82	J/molxK	750.98	Joback Method
cpg	721.69	J/molxK	787.69	Joback Method
cpg	741.10	J/molxK	824.40	Joback Method

dvisc	0.0121478	Paxs	269.84	Joback Method
dvisc	0.0031999	Paxs	325.56	Joback Method
dvisc	0.0012448	Paxs	381.27	Joback Method
dvisc	0.0006161	Paxs	436.99	Joback Method
dvisc	0.0003575	Paxs	492.71	Joback Method
dvisc	0.0002317	Paxs	548.42	Joback Method
dvisc	0.0001627	Paxs	604.14	Joback Method

## Sources

<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C54890016&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C54890016&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>

## Legend

<b>chs:</b>	Standard solid enthalpy of combustion
<b>cp<sub>g</sub>:</b>	Ideal gas heat capacity
<b>dvisc:</b>	Dynamic viscosity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>h<sub>vap</sub>:</b>	Enthalpy of vaporization at standard conditions
<b>log<sub>10</sub>ws:</b>	Log <sub>10</sub> of Water solubility in mol/l
<b>log<sub>p</sub>:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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