

# Dodecane, 5-cyclohexyl-

<b>Other names:</b>	Cyclohexane, 1-butyloctyl
<b>Inchi:</b>	InChI=1S/C18H36/c1-3-5-7-8-10-14-17(13-6-4-2)18-15-11-9-12-16-18/h17-18H,3-16H2,1
<b>InchiKey:</b>	KBVIBWSEPXLFGZ-UHFFFAOYSA-N
<b>Formula:</b>	C18H36
<b>SMILES:</b>	CCCCCCCC(CCCC)C1CCCCC1
<b>Mol. weight [g/mol]:</b>	252.48
<b>CAS:</b>	13151-85-4

## Physical Properties

Property code	Value	Unit	Source
gf	122.69	kJ/mol	Joback Method
hf	-365.81	kJ/mol	Joback Method
hfus	30.69	kJ/mol	Joback Method
hvap	55.70	kJ/mol	Joback Method
log10ws	-6.77		Crippen Method
logp	6.734		Crippen Method
mcvol	253.620	ml/mol	McGowan Method
pc	1338.82	kPa	Joback Method
rinpol	1768.00		NIST Webbook
tb	630.35	K	Joback Method
tc	813.84	K	Joback Method
tf	285.00	K	Joback Method
vc	0.971	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	720.29	J/molxK	630.35	Joback Method
cpg	743.68	J/molxK	660.93	Joback Method
cpg	765.91	J/molxK	691.51	Joback Method
cpg	787.01	J/molxK	722.10	Joback Method
cpg	807.04	J/molxK	752.68	Joback Method
cpg	826.01	J/molxK	783.26	Joback Method
cpg	843.97	J/molxK	813.84	Joback Method

dvisc	0.0078543	Paxs	285.00	Joback Method
dvisc	0.0021885	Paxs	342.56	Joback Method
dvisc	0.0008808	Paxs	400.12	Joback Method
dvisc	0.0004457	Paxs	457.68	Joback Method
dvisc	0.0002626	Paxs	515.23	Joback Method
dvisc	0.0001721	Paxs	572.79	Joback Method
dvisc	0.0001218	Paxs	630.35	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=C13151854&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C13151854&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</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>cpg:</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>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>rinpol:</b>	Non-polar retention indices
<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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