

# 7,12-dimethylhexadecane

<b>Inchi:</b>	InChI=1S/C18H38/c1-5-7-9-10-14-18(4)16-12-11-15-17(3)13-8-6-2/h17-18H,5-16H2,1-4H
<b>InchiKey:</b>	SMIODVFHOSPVJY-UHFFFAOYSA-N
<b>Formula:</b>	C18H38
<b>SMILES:</b>	CCCCCCC(C)CCCC(C)CCCC
<b>Mol. weight [g/mol]:</b>	254.49

## Physical Properties

Property code	Value	Unit	Source
gf	95.80	kJ/mol	Joback Method
hf	-425.41	kJ/mol	Joback Method
hfus	35.33	kJ/mol	Joback Method
hvap	54.89	kJ/mol	Joback Method
log10ws	-6.87		Crippen Method
logp	6.980		Crippen Method
mcvol	264.480	ml/mol	McGowan Method
pc	1164.84	kPa	Joback Method
rinpol	1887.00		NIST Webbook
rinpol	1887.00		NIST Webbook
tb	610.36	K	Joback Method
tc	773.50	K	Joback Method
tf	262.62	K	Joback Method
vc	1.032	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	724.07	J/mol×K	610.36	Joback Method
cpg	819.32	J/mol×K	746.31	Joback Method
cpg	801.88	J/mol×K	719.12	Joback Method
cpg	783.65	J/mol×K	691.93	Joback Method
cpg	764.63	J/mol×K	664.74	Joback Method
cpg	744.77	J/mol×K	637.55	Joback Method
cpg	836.01	J/mol×K	773.50	Joback Method
dvisc	0.0001069	Paxs	610.36	Joback Method

dvisc	0.0001529	Paxs	552.40	Joback Method
dvisc	0.0002378	Paxs	494.45	Joback Method
dvisc	0.0004158	Paxs	436.49	Joback Method
dvisc	0.0008629	Paxs	378.53	Joback Method
dvisc	0.0023312	Paxs	320.58	Joback Method
dvisc	0.0097660	Paxs	262.62	Joback Method

## Sources

<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>
<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=R262185&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R262185&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>

## Legend

<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>hvap:</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>logp:</b>	Octanol/Water partition coefficient
<b>m<sub>cvol</sub>:</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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