

# 5,13-dimethyloctadecane

**Inchi:** InChI=1S/C20H42/c1-5-7-12-16-20(4)18-14-11-9-10-13-17-19(3)15-8-6-2/h19-20H,5-18H  
**InchiKey:** OKZBNKWKVPRWAT-UHFFFAOYSA-N  
**Formula:** C20H42  
**SMILES:** CCCCC(C)CCCCCCCC(C)CCCC  
**Mol. weight [g/mol]:** 282.55

## Physical Properties

Property code	Value	Unit	Source
gf	112.64	kJ/mol	Joback Method
hf	-466.69	kJ/mol	Joback Method
hfus	40.51	kJ/mol	Joback Method
hvap	59.34	kJ/mol	Joback Method
log10ws	-7.71		Crippen Method
logp	7.760		Crippen Method
mvol	292.660	ml/mol	McGowan Method
pc	1025.97	kPa	Joback Method
rinpol	1899.00		NIST Webbook
rinpol	1899.00		NIST Webbook
tb	656.12	K	Joback Method
tc	819.90	K	Joback Method
tf	285.16	K	Joback Method
vc	1.143	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	841.15	J/molxK	656.12	Joback Method
cpg	862.59	J/molxK	683.42	Joback Method
cpg	883.13	J/molxK	710.71	Joback Method
cpg	902.79	J/molxK	738.01	Joback Method
cpg	921.59	J/molxK	765.31	Joback Method
cpg	939.58	J/molxK	792.60	Joback Method
cpg	956.77	J/molxK	819.90	Joback Method
dvisc	0.0075349	Paxs	285.16	Joback Method

dvisc	0.0018250	Paxs	346.99	Joback Method
dvisc	0.0006788	Paxs	408.81	Joback Method
dvisc	0.0003274	Paxs	470.64	Joback Method
dvisc	0.0001870	Paxs	532.47	Joback Method
dvisc	0.0001200	Paxs	594.29	Joback Method
dvisc	0.0000838	Paxs	656.12	Joback Method

## Sources

<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>
<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=R261657&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R261657&amp;Units=SI</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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