

# Naphthalene, 1-decyl-1,2,3,4-tetrahydro-

<b>Inchi:</b>	InChI=1S/C20H32/c1-2-3-4-5-6-7-8-9-13-18-15-12-16-19-14-10-11-17-20(18)19/h10-11,12-17,19-20
<b>InchiKey:</b>	IDEKMYNPFDFXKI-UHFFFAOYSA-N
<b>Formula:</b>	C20H32
<b>SMILES:</b>	CCCCCCCCC1CCCc2ccccc21
<b>Mol. weight [g/mol]:</b>	272.47
<b>CAS:</b>	55255-57-7

## Physical Properties

Property code	Value	Unit	Source
gf	268.95	kJ/mol	Joback Method
hf	-164.43	kJ/mol	Joback Method
hfus	37.24	kJ/mol	Joback Method
hvap	63.14	kJ/mol	Joback Method
log10ws	-7.12		Crippen Method
logp	6.637		Crippen Method
mvol	258.040	ml/mol	McGowan Method
pc	1405.90	kPa	Joback Method
tb	699.67	K	Joback Method
tc	898.28	K	Joback Method
tf	368.52	K	Joback Method
vc	0.997	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	756.97	J/molxK	699.67	Joback Method
cpg	851.75	J/molxK	865.18	Joback Method
cpg	834.94	J/molxK	832.08	Joback Method
cpg	817.13	J/molxK	798.98	Joback Method
cpg	798.24	J/molxK	765.87	Joback Method
cpg	778.20	J/molxK	732.77	Joback Method
cpg	867.61	J/molxK	898.28	Joback Method
dvisc	0.0001928	Paxs	699.67	Joback Method
dvisc	0.0002425	Paxs	644.48	Joback Method

dvisc	0.0003183	Paxs	589.29	Joback Method
dvisc	0.0004421	Paxs	534.10	Joback Method
dvisc	0.0006623	Paxs	478.90	Joback Method
dvisc	0.0011025	Paxs	423.71	Joback Method
dvisc	0.0021376	Paxs	368.52	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=C55255577&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C55255577&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>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>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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