

# 1-t-Butyltetralin

<b>Inchi:</b>	InChI=1S/C14H20/c1-14(2,3)13-10-6-8-11-7-4-5-9-12(11)13/h4-5,7,9,13H,6,8,10H2,1-3H
<b>InchiKey:</b>	ZTZYMPJTCAZBIN-UHFFFAOYSA-N
<b>Formula:</b>	C14H20
<b>SMILES:</b>	CC(C)(C)C1CCCc2ccccc21
<b>Mol. weight [g/mol]:</b>	188.31
<b>CAS:</b>	42044-20-2

## Physical Properties

Property code	Value	Unit	Source
gf	221.27	kJ/mol	Joback Method
hf	-49.34	kJ/mol	Joback Method
hfus	14.29	kJ/mol	Joback Method
hvap	48.48	kJ/mol	Joback Method
log10ws	-4.37		Crippen Method
logp	4.153		Crippen Method
mcvol	173.500	ml/mol	McGowan Method
pc	2329.27	kPa	Joback Method
tb	559.16	K	Joback Method
tc	789.80	K	Joback Method
tf	303.32	K	Joback Method
vc	0.649	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	432.97	J/molxK	559.16	Joback Method
cpg	454.08	J/molxK	597.60	Joback Method
cpg	473.68	J/molxK	636.04	Joback Method
cpg	491.85	J/molxK	674.48	Joback Method
cpg	508.71	J/molxK	712.92	Joback Method
cpg	524.35	J/molxK	751.36	Joback Method
cpg	538.87	J/molxK	789.80	Joback Method
dvisc	0.0029253	Paxs	303.32	Joback Method
dvisc	0.0015589	Paxs	345.96	Joback Method

dvisc	0.0009538	Paxs	388.60	Joback Method
dvisc	0.0006432	Paxs	431.24	Joback Method
dvisc	0.0004655	Paxs	473.88	Joback Method
dvisc	0.0003554	Paxs	516.52	Joback Method
dvisc	0.0002828	Paxs	559.16	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=C42044202&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C42044202&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>mccvol:</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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