

# trans,trans,trans-Bicyclo[4.4.0]decane, 2,5-dimethyl

**Inchi:** InChI=1S/C12H22/c1-9-7-8-10(2)12-6-4-3-5-11(9)12/h9-12H,3-8H2,1-2H3/t9-,10+,11+,12+  
**InchiKey:** POHSTLAFRROMOQ-YZTHKRDXSA-N  
**Formula:** C12H22  
**SMILES:** CC1CCC(C)C2CCCCC12  
**Mol. weight [g/mol]:** 166.30

## Physical Properties

Property code	Value	Unit	Source
gf	107.84	kJ/mol	Joback Method
hf	-210.73	kJ/mol	Joback Method
hfus	16.85	kJ/mol	Joback Method
hvap	42.20	kJ/mol	Joback Method
log10ws	-3.67		Crippen Method
logp	3.859		Crippen Method
mcvol	158.220	ml/mol	McGowan Method
pc	2320.31	kPa	Joback Method
ripol	1218.00		NIST Webbook
ripol	1332.00		NIST Webbook
ripol	1332.00		NIST Webbook
tb	495.18	K	Joback Method
tc	710.00	K	Joback Method
tf	238.32	K	Joback Method
vc	0.588	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	382.66	J/molxK	495.18	Joback Method
cpg	407.11	J/molxK	530.98	Joback Method
cpg	430.21	J/molxK	566.79	Joback Method
cpg	451.99	J/molxK	602.59	Joback Method
cpg	472.51	J/molxK	638.39	Joback Method
cpg	491.81	J/molxK	674.20	Joback Method
cpg	509.92	J/molxK	710.00	Joback Method

dvisc	0.0022593	Paxs	238.32	Joback Method
dvisc	0.0013842	Paxs	281.13	Joback Method
dvisc	0.0009653	Paxs	323.94	Joback Method
dvisc	0.0007322	Paxs	366.75	Joback Method
dvisc	0.0005885	Paxs	409.56	Joback Method
dvisc	0.0004929	Paxs	452.37	Joback Method
dvisc	0.0004257	Paxs	495.18	Joback Method

## Sources

<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=R531669&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R531669&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</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>log<sub>p</sub>:</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>ripol:</b>	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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