

# trans-Decalin, 1a-methyl

<b>Inchi:</b>	InChI=1S/C11H20/c1-9-5-4-7-10-6-2-3-8-11(9)10/h9-11H,2-8H2,1H3/t9-,10-,11-/m0/s1
<b>InchiKey:</b>	NHCREQREVZBOCH-DCAQKATOSA-N
<b>Formula:</b>	C11H20
<b>SMILES:</b>	CC1CCCC2CCCC12
<b>Mol. weight [g/mol]:</b>	152.28

## Physical Properties

Property code	Value	Unit	Source
gf	107.13	kJ/mol	Joback Method
hf	-169.75	kJ/mol	Joback Method
hfus	13.19	kJ/mol	Joback Method
hvap	40.29	kJ/mol	Joback Method
log10ws	-3.49		Crippen Method
logp	3.613		Crippen Method
mvol	144.130	ml/mol	McGowan Method
pc	2637.96	kPa	Joback Method
rinpol	1168.00		NIST Webbook
rinpol	1168.00		NIST Webbook
tb	476.97	K	Joback Method
tc	695.39	K	Joback Method
tf	231.29	K	Joback Method
vc	0.532	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	333.53	J/molxK	476.97	Joback Method
cpg	356.99	J/molxK	513.37	Joback Method
cpg	379.11	J/molxK	549.78	Joback Method
cpg	399.91	J/molxK	586.18	Joback Method
cpg	419.46	J/molxK	622.58	Joback Method
cpg	437.80	J/molxK	658.98	Joback Method
cpg	454.99	J/molxK	695.39	Joback Method
dvisc	0.0031852	Paxs	231.29	Joback Method

dvisc	0.0017507	Paxs	272.24	Joback Method
dvisc	0.0011253	Paxs	313.18	Joback Method
dvisc	0.0008011	Paxs	354.13	Joback Method
dvisc	0.0006120	Paxs	395.08	Joback Method
dvisc	0.0004917	Paxs	436.02	Joback Method
dvisc	0.0004102	Paxs	476.97	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=R120393&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R120393&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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