cis-Decalin, 2-syn-methyl-

Other names: cis-Decalin, trans-2e-methyl, r-9H
Inchi: InChI=1S/C11H20/c1-9-6-7-10-4-2-3-5-11(10)8-9/h9-11H,2-8H2,1H3
InchiKey: GREARFRXIFVLGB-UHFFFAOYSA-N
Formula: C11H20
SMILES: CC1CCC2CCCCC2C1
Mol. weight [g/mol]: 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
mcvol	144.130	ml/mol	McGowan Method
pc	2637.96	kPa	Joback Method
rinpol	1159.00		NIST Webbook
tb	476.97	K	Joback Method
tc	695.39	K	Joback Method
tf	231.29	K	Joback Method
vc	0.532	m3/kmol	Joback Method

Temperature Dependent Properties

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

dvisc	0.0017507	Pa×s	272.24	Joback Method
dvisc	0.0011253	Pa×s	313.18	Joback Method
dvisc	0.0008011	Pa×s	354.13	Joback Method
dvisc	0.0006120	Pa×s	395.08	Joback Method
dvisc	0.0004917	Pa×s	436.02	Joback Method
dvisc	0.0004102	Pa×s	476.97	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U155856&Units=SI

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume