

1-Methyldecalin, trans

Inchi:	InChI=1S/C11H20/c1-9-5-4-7-10-6-2-3-8-11(9)10/h9-11H,2-8H2,1H3/t9?,10-,11-/m1/s1
InchiKey:	NHCREQREVZBOCH-FHZGLPGMSA-N
Formula:	C11H20
SMILES:	CC1CCCC2CCCCC12
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
rinsol	1152.00		NIST Webbook
tb	476.97	K	Joback Method
tc	695.39	K	Joback Method
tf	231.29	K	Joback Method
vc	0.532	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	333.53	J/mol×K	476.97	Joback Method
cpg	437.80	J/mol×K	658.98	Joback Method
cpg	419.46	J/mol×K	622.58	Joback Method
cpg	399.91	J/mol×K	586.18	Joback Method
cpg	379.11	J/mol×K	549.78	Joback Method
cpg	356.99	J/mol×K	513.37	Joback Method
cpg	454.99	J/mol×K	695.39	Joback Method
dvisc	0.0004102	Paxs	476.97	Joback Method
dvisc	0.0004917	Paxs	436.02	Joback Method

dvisc	0.0006120	Paxs	395.08	Joback Method
dvisc	0.0008011	Paxs	354.13	Joback Method
dvisc	0.0011253	Paxs	313.18	Joback Method
dvisc	0.0017507	Paxs	272.24	Joback Method
dvisc	0.0031852	Paxs	231.29	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=R578188&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

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