

1-Propyldecalin, cis

Inchi:	InChI=1S/C13H24/c1-2-6-11-8-5-9-12-7-3-4-10-13(11)12/h11-13H,2-10H2,1H3/t11?,12-,
InchiKey:	HIXIFRGJVIZERN-LWNNLQOSA-N
Formula:	C13H24
SMILES:	CCCC1CCCC2CCCCC12
Mol. weight [g/mol]:	180.33

Physical Properties

Property code	Value	Unit	Source
gf	123.97	kJ/mol	Joback Method
hf	-211.03	kJ/mol	Joback Method
hfus	18.37	kJ/mol	Joback Method
hvap	44.74	kJ/mol	Joback Method
log10ws	-4.33		Crippen Method
logp	4.393		Crippen Method
mcvol	172.310	ml/mol	McGowan Method
pc	2185.64	kPa	Joback Method
rinsol	1372.00		NIST Webbook
tb	522.73	K	Joback Method
tc	734.35	K	Joback Method
tf	253.83	K	Joback Method
vc	0.644	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	433.98	J/molxK	522.73	Joback Method
cpg	458.38	J/molxK	558.00	Joback Method
cpg	481.40	J/molxK	593.27	Joback Method
cpg	503.08	J/molxK	628.54	Joback Method
cpg	523.47	J/molxK	663.81	Joback Method
cpg	542.63	J/molxK	699.08	Joback Method
cpg	560.61	J/molxK	734.35	Joback Method
dvisc	0.0037366	Paxs	253.83	Joback Method
dvisc	0.0019401	Paxs	298.65	Joback Method

dvisc	0.0011953	Paxs	343.46	Joback Method
dvisc	0.0008235	Paxs	388.28	Joback Method
dvisc	0.0006128	Paxs	433.10	Joback Method
dvisc	0.0004821	Paxs	477.91	Joback Method
dvisc	0.0003951	Paxs	522.73	Joback Method

Sources

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=R578193&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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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