

Hexadecane, 1-(5,6,7,8-tetrahydro-2-naphthyl)-

Inchi:	InChI=1S/C26H44/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-18-24-21-22-25-19-16-17-20-2
InchiKey:	CEJDNZVHBMHQMZ-UHFFFAOYSA-N
Formula:	C26H44
SMILES:	CCCCCCCCCCCCCCCCc1ccc2c(c1)CCCC2
Mol. weight [g/mol]:	356.63
CAS:	2655-96-1

Physical Properties

Property code	Value	Unit	Source
gf	317.55	kJ/mol	Joback Method
hf	-279.40	kJ/mol	Joback Method
hfus	51.32	kJ/mol	Joback Method
hvap	77.46	kJ/mol	Joback Method
log10ws	-9.63		Crippen Method
logp	8.589		Crippen Method
mcvol	342.580	ml/mol	McGowan Method
pc	961.48	kPa	Joback Method
tb	846.60	K	Joback Method
tc	1044.13	K	Joback Method
tf	452.90	K	Joback Method
vc	1.333	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1119.69	J/molxK	846.60	Joback Method
cpg	1141.28	J/molxK	879.52	Joback Method
cpg	1161.70	J/molxK	912.44	Joback Method
cpg	1181.03	J/molxK	945.37	Joback Method
cpg	1199.37	J/molxK	978.29	Joback Method
cpg	1216.77	J/molxK	1011.21	Joback Method
cpg	1233.34	J/molxK	1044.13	Joback Method
dvisc	0.0011433	Paxs	452.90	Joback Method
dvisc	0.0005476	Paxs	518.52	Joback Method

dvisc	0.0003094	Paxs	584.13	Joback Method
dvisc	0.0001962	Paxs	649.75	Joback Method
dvisc	0.0001353	Paxs	715.37	Joback Method
dvisc	0.0000993	Paxs	780.98	Joback Method
dvisc	0.0000764	Paxs	846.60	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=C2655961&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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