

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

Inchi:	InChI=1S/C26H44/c1-3-5-7-8-9-10-11-13-17-23(16-12-6-4-2)26-21-20-24-18-14-15-19-2
InchiKey:	PHAPTVFPQKRCBC-UHFFFAOYSA-N
Formula:	C26H44
SMILES:	CCCCCCCCCCC(CCCCC)c1ccc2c(c1)CCCC2
Mol. weight [g/mol]:	356.63
CAS:	2657-50-3

Physical Properties

Property code	Value	Unit	Source
gf	315.11	kJ/mol	Joback Method
hf	-284.68	kJ/mol	Joback Method
hfus	47.80	kJ/mol	Joback Method
hvap	77.08	kJ/mol	Joback Method
log10ws	-9.60		Crippen Method
logp	8.760		Crippen Method
mcvol	342.580	ml/mol	McGowan Method
pc	966.27	kPa	Joback Method
tb	846.16	K	Joback Method
tc	1045.12	K	Joback Method
tf	437.90	K	Joback Method
vc	1.327	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1120.13	J/molxK	846.16	Joback Method
cpg	1141.86	J/molxK	879.32	Joback Method
cpg	1162.39	J/molxK	912.48	Joback Method
cpg	1181.82	J/molxK	945.64	Joback Method
cpg	1200.22	J/molxK	978.80	Joback Method
cpg	1217.67	J/molxK	1011.96	Joback Method
cpg	1234.26	J/molxK	1045.12	Joback Method
dvisc	0.0013305	Paxs	437.90	Joback Method
dvisc	0.0005855	Paxs	505.94	Joback Method

dvisc	0.0003130	Paxs	573.99	Joback Method
dvisc	0.0001911	Paxs	642.03	Joback Method
dvisc	0.0001283	Paxs	710.07	Joback Method
dvisc	0.0000923	Paxs	778.12	Joback Method
dvisc	0.0000700	Paxs	846.16	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=C2657503&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
mccvol:	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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