Naphthalene, 1,2,3,4-tetrahydro-1-nonyl-

Inchi: InChI=1S/C19H30/c1-2-3-4-5-6-7-8-12-17-14-11-15-18-13-9-10-16-19(17)18/h9-10,13,16
InchiKey: QMOFHSNOIHJCKA-UHFFFAOYSA-N
Formula: C19H30
SMILES: CCCCCCCCCC1CCCc2ccccc21
Mol. weight [g/mol]: 258.44
CAS: 33425-49-9

Physical Properties

Property code	Value	Unit	Source
gf	260.53	kJ/mol	Joback Method
hf	-143.79	kJ/mol	Joback Method
hfus	34.65	kJ/mol	Joback Method
hvap	60.91	kJ/mol	Joback Method
log10ws	-6.70		Crippen Method
logp	6.247		Crippen Method
mcvol	243.950	ml/mol	McGowan Method
pc	1512.85	kPa	Joback Method
tb	676.79	K	Joback Method
tc	877.60	K	Joback Method
tf	357.25	K	Joback Method
vc	0.941	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	699.40	J/mol×K	676.79	Joback Method
cpg	720.51	J/mol×K	710.26	Joback Method
cpg	740.41	J/mol×K	743.73	Joback Method
cpg	759.17	J/mol×K	777.20	Joback Method
cpg	776.84	J/mol×K	810.66	Joback Method
cpg	793.50	J/mol×K	844.13	Joback Method
cpg	809.20	J/mol×K	877.60	Joback Method
dvisc	0.0022314	Pa×s	357.25	Joback Method
dvisc	0.0011695	Pa×s	410.51	Joback Method

dvisc	0.0007109	Pa×s	463.76	Joback Method
dvisc	0.0004789	Pa×s	517.02	Joback Method
dvisc	0.0003473	Pa×s	570.28	Joback Method
dvisc	0.0002660	Pa×s	623.53	Joback Method
dvisc	0.0002125	Pa×s	676.79	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C33425499&Units=SI
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

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