1,2,3,4,5,8-Hexahydronaphthalene

Inchi: InChI=1S/C10H14/c1-2-6-10-8-4-3-7-9(10)5-1/h1-2H,3-8H2
InchiKey: CCLPTDRLVDMCRP-UHFFFAOYSA-N
Formula: C10H14
SMILES: C1=CCC2=C(C1)CCCC2
Mol. weight [g/mol]: 134.22
CAS: 36231-13-7

Physical Properties

Property code	Value	Unit	Source
gf	162.50	kJ/mol	Joback Method
hf	4.53	kJ/mol	Joback Method
hfus	9.05	kJ/mol	Joback Method
hvap	40.89	kJ/mol	Joback Method
log10ws	-3.51		Crippen Method
logp	3.207		Crippen Method
mcvol	121.440	ml/mol	McGowan Method
pc	3419.86	kPa	Joback Method
rinpol	1147.00		NIST Webbook
tb	476.38	K	Joback Method
tc	706.48	K	Joback Method
tf	259.30	K	Joback Method
vc	0.452	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	257.16	J/mol×K	476.38	Joback Method
cpg	335.41	J/mol×K	668.13	Joback Method
cpg	321.92	J/mol×K	629.78	Joback Method
cpg	307.43	J/mol×K	591.43	Joback Method
cpg	291.85	J/mol×K	553.08	Joback Method
cpg	275.11	J/mol×K	514.73	Joback Method
cpg	347.95	J/mol×K	706.48	Joback Method
dvisc	0.0003376	Pa×s	476.38	Joback Method

dvisc	0.0004207	Pa×s	440.20	Joback Method
dvisc	0.0005452	Pa×s	404.02	Joback Method
dvisc	0.0007437	Pa×s	367.84	Joback Method
dvisc	0.0010856	Pa×s	331.66	Joback Method
dvisc	0.0017382	Pa×s	295.48	Joback Method
dvisc	0.0031741	Pa×s	259.30	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C36231137&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume