Naphthalene, 1,2-dihydro-4-phenyl-

Other names: 1,2-Dihydro-4-phenylnaphthalene
3,4-Dihydro-1-phenylnaphthalene
1-Phenyl-3,4-dihydronaphthalene
1-Phenyl dialin
4-Phenyl-1,2-dihydronaphthalene
Inchi: InChI=1S/C16H14/c1-2-7-13(8-3-1)16-12-6-10-14-9-4-5-11-15(14)16/h1-5,7-9,11-12H,6,
InchiKey: JKTVTLYXBAHXCW-UHFFFAOYSA-N
Formula: C16H14
SMILES: C1=C(c2ccccc2)c2ccccc2CC1
Mol. weight [g/mol]: 206.28
CAS: 7469-40-1

Physical Properties

Property code	Value	Unit	Source
gf	375.72	kJ/mol	Joback Method
hf	221.31	kJ/mol	Joback Method
hfus	20.69	kJ/mol	Joback Method
hvap	57.77	kJ/mol	Joback Method
log10ws	-4.71		Crippen Method
logp	4.064		Crippen Method
mcvol	173.620	ml/mol	McGowan Method
pc	2775.92	kPa	Joback Method
rinpol	307.88		NIST Webbook
tb	643.64	K	Joback Method
tc	903.63	K	Joback Method
tf	367.38	K	Joback Method
vc	0.651	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	434.72	J/mol×K	643.64	Joback Method
cpg	452.69	J/mol×K	686.97	Joback Method
cpg	469.11	J/mol×K	730.30	Joback Method

cpg	484.13	J/mol×K	773.63	Joback Method
cpg	497.89	J/mol×K	816.97	Joback Method
cpg	510.52	J/mol×K	860.30	Joback Method
cpg	522.16	J/mol×K	903.63	Joback Method
dvisc	0.0016586	Pa×s	367.38	Joback Method
dvisc	0.0010117	Pa×s	413.42	Joback Method
dvisc	0.0006813	Pa×s	459.47	Joback Method
dvisc	0.0004931	Pa×s	505.51	Joback Method
dvisc	0.0003767	Pa×s	551.55	Joback Method
dvisc	0.0003000	Pa×s	597.60	Joback Method
dvisc	0.0002468	Pa×s	643.64	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	449.20	K	1.60	NIST Webbook

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C7469401&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume