

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

Other names:	1,2,3,4-Tetrahydro-2-phenylnaphthalene
Inchi:	InChI=1S/C16H16/c1-2-6-13(7-3-1)16-11-10-14-8-4-5-9-15(14)12-16/h1-9,16H,10-12H2
InchiKey:	DYYMTTVEKTABS-UHFFFAOYSA-N
Formula:	C16H16
SMILES:	<chem>c1ccc(C2CCc3ccccc3C2)cc1</chem>
Mol. weight [g/mol]:	208.30
CAS:	29422-13-7

Physical Properties

Property code	Value	Unit	Source
gf	347.68	kJ/mol	Joback Method
hf	154.66	kJ/mol	Joback Method
hfus	20.92	kJ/mol	Joback Method
hvap	56.51	kJ/mol	Joback Method
log10ws	-4.55		Crippen Method
logp	3.959		Crippen Method
mcvol	177.920	ml/mol	McGowan Method
pc	2624.46	kPa	Joback Method
tb	634.83	K	Joback Method
tc	891.50	K	Joback Method
tf	349.86	K	Joback Method
vc	0.664	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	459.50	J/molxK	634.83	Joback Method
cpg	544.51	J/molxK	848.72	Joback Method
cpg	530.34	J/molxK	805.95	Joback Method
cpg	514.88	J/molxK	763.17	Joback Method
cpg	498.01	J/molxK	720.39	Joback Method
cpg	479.59	J/molxK	677.61	Joback Method
cpg	557.52	J/molxK	891.50	Joback Method
dvisc	0.0002808	Paxs	634.83	Joback Method

dvisc	0.0003413	Paxs	587.33	Joback Method
dvisc	0.0004292	Paxs	539.84	Joback Method
dvisc	0.0005641	Paxs	492.34	Joback Method
dvisc	0.0007861	Paxs	444.85	Joback Method
dvisc	0.0011859	Paxs	397.36	Joback Method
dvisc	0.0020002	Paxs	349.86	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C29422137&Units=SI
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

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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