Naphthalene, 2-(phenylmethyl)-

Other names: Naphthalene, 2-benzyl-
2-Benzylnaphthalene
2-(Phenylmethyl)naphthalene
Inchi: InChI=1S/C17H14/c1-2-6-14(7-3-1)12-15-10-11-16-8-4-5-9-17(16)13-15/h1-11,13H,12H2
InchiKey: JASHTKAXQWIZGF-UHFFFAOYSA-N
Formula: C17H14
SMILES: c1ccc(Cc2ccc3ccccc3c2)cc1
Mol. weight [g/mol]: 218.29
CAS: 613-59-2

Physical Properties

Property code	Value	Unit	Source
gf	414.10	kJ/mol	Joback Method
hf	258.45	kJ/mol	Joback Method
hfus	24.50	kJ/mol	Joback Method
hvap	60.29	kJ/mol	Joback Method
log10ws	-5.38		Crippen Method
logp	4.431		Crippen Method
mcvol	183.410	ml/mol	McGowan Method
pc	2608.40	kPa	Joback Method
rinpol	339.20		NIST Webbook
rinpol	350.51		NIST Webbook
rinpol	349.45		NIST Webbook
rinpol	349.45		NIST Webbook
rinpol	349.29		NIST Webbook
rinpol	339.20		NIST Webbook
tb	665.68	K	Joback Method
tc	922.07	K	Joback Method
tf	328.00 ± 3.00	K	NIST Webbook
vc	0.694	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	463.17	J/mol×K	665.68	Joback Method
cpg	480.30	J/mol×K	708.41	Joback Method
cpg	495.97	J/mol×K	751.14	Joback Method
cpg	510.32	J/mol×K	793.87	Joback Method
cpg	523.50	J/mol×K	836.61	Joback Method
cpg	535.63	J/mol×K	879.34	Joback Method
cpg	546.87	J/mol×K	922.07	Joback Method
dvisc	0.0015077	Pa×s	379.41	Joback Method
dvisc	0.0009333	Pa×s	427.12	Joback Method
dvisc	0.0006361	Pa×s	474.83	Joback Method
dvisc	0.0004651	Pa×s	522.55	Joback Method
dvisc	0.0003583	Pa×s	570.26	Joback Method
dvisc	0.0002874	Pa×s	617.97	Joback Method
dvisc	0.0002379	Pa×s	665.68	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C613592&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