Benzene, 1-bromo-4-(2-phenylethyl)-

Other names: Bibenzyl, 4-bromo-
4-Bromobibenzyl
1-(4-Bromophenyl)-2-phenylethane
Inchi: InChI=1S/C14H13Br/c15-14-10-8-13(9-11-14)7-6-12-4-2-1-3-5-12/h1-5,8-11H,6-7H2
InchiKey: FTRWFZZSIXRXFI-UHFFFAOYSA-N
Formula: C14H13Br
SMILES: Brc1ccc(CCc2ccccc2)cc1
Mol. weight [g/mol]: 261.16
CAS: 14310-24-8

Physical Properties

Property code	Value	Unit	Source
gf	296.51	kJ/mol	Joback Method
hf	155.63	kJ/mol	Joback Method
hfus	24.99	kJ/mol	Joback Method
hvap	58.41	kJ/mol	Joback Method
ie	8.80 ± 0.10	eV	NIST Webbook
log10ws	-5.05		Crippen Method
logp	4.234		Crippen Method
mcvol	178.100	ml/mol	McGowan Method
pc	2934.52	kPa	Joback Method
tb	644.22	K	Joback Method
tc	897.53	K	Joback Method
tf	372.70	K	Joback Method
vc	0.665	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	412.46	J/mol×K	644.22	Joback Method
cpg	478.79	J/mol×K	855.31	Joback Method
cpg	467.71	J/mol×K	813.09	Joback Method
cpg	455.63	J/mol×K	770.87	Joback Method
cpg	442.46	J/mol×K	728.66	Joback Method

cpg	428.10	J/mol×K	686.44	Joback Method
cpg	488.98	J/mol×K	897.53	Joback Method
dvisc	0.0001733	Pa×s	644.22	Joback Method
dvisc	0.0002173	Pa×s	598.97	Joback Method
dvisc	0.0002827	Pa×s	553.71	Joback Method
dvisc	0.0003855	Pa×s	508.46	Joback Method
dvisc	0.0005585	Pa×s	463.21	Joback Method
dvisc	0.0008766	Pa×s	417.95	Joback Method
dvisc	0.0015353	Pa×s	372.70	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C14310248&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

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
ie:	Ionization energy
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