Benzylcyclopentane

Other names: Benzene, (cyclopentylmethyl)-
Inchi: InChI=1S/C12H16/c1-2-6-11(7-3-1)10-12-8-4-5-9-12/h1-3,6-7,12H,4-5,8-10H2
InchiKey: WAAUXNSLVPBVRA-UHFFFAOYSA-N
Formula: C12H16
SMILES: c1ccc(CC2CCCC2)cc1
Mol. weight [g/mol]: 160.26
CAS: 4410-78-0

Physical Properties

Property code	Value	Unit	Source
gf	199.12	kJ/mol	Joback Method
hf	6.00	kJ/mol	Joback Method
hfus	14.81	kJ/mol	Joback Method
hvap	44.84	kJ/mol	Joback Method
log10ws	-3.60		Crippen Method
logp	3.419		Crippen Method
mcvol	145.320	ml/mol	McGowan Method
pc	2893.62	kPa	Joback Method
tb	515.92	K	Joback Method
tc	747.71	K	Joback Method
tf	262.32	K	Joback Method
vc	0.540	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	332.30	J/mol×K	515.92	Joback Method
cpg	352.49	J/mol×K	554.55	Joback Method
cpg	371.30	J/mol×K	593.18	Joback Method
cpg	388.80	J/mol×K	631.82	Joback Method
cpg	405.07	J/mol×K	670.45	Joback Method
cpg	420.17	J/mol×K	709.08	Joback Method
cpg	434.16	J/mol×K	747.71	Joback Method
dvisc	0.0037552	Pa×s	262.32	Joback Method

dvisc	0.0018052	Pa×s	304.59	Joback Method
dvisc	0.0010374	Pa×s	346.85	Joback Method
dvisc	0.0006724	Pa×s	389.12	Joback Method
dvisc	0.0004744	Pa×s	431.39	Joback Method
dvisc	0.0003563	Pa×s	473.65	Joback Method
dvisc	0.0002804	Pa×s	515.92	Joback Method

Sources

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=C4410780&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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