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

Other names:	Bibenzyl, 4-fluoro-
	4-Fluorobibenzyl
	1-(4-Fluorophenyl)-2-phenylethane
	L-(4-Fluorophenyl)-2-phenylethane
Inchi:	InChI=1S/C14H13F/c15-14-10-8-13(9-11-14)7-6-12-4-2-1-3-5-12/h1-5,8-11H,6-7H2
InchiKey:	LGAWAQNSZFCGMP-UHFFFAOYSA-N
Formula:	C14H13F
SMILES:	Fc1ccc(CCc2ccccc2)cc1
Mol. weight [g/mol]:	200.25
CAS:	370-76-3

Physical Properties

Property code	Value	Unit	Source
gf	87.38	kJ/mol	Joback Method
hf	-66.81	kJ/mol	Joback Method
hfus	22.79	kJ/mol	Joback Method
hvap	51.16	kJ/mol	Joback Method
ie	8.80 ± 0.10	eV	NIST Webbook
log10ws	-4.22		Crippen Method
logp	3.611		Crippen Method
mcvol	162.370	ml/mol	McGowan Method
pc	2603.08	kPa	Joback Method
tb	577.33	K	Joback Method
tc	805.90	K	Joback Method
tf	313.49	K	Joback Method
vc	0.622	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	380.31	J/mol×K	577.33	Joback Method
cpg	396.84	J/mol×K	615.42	Joback Method
cpg	412.20	J/mol×K	653.52	Joback Method
cpg	426.45	J/mol×K	691.61	Joback Method

cpg	439.65	J/mol×K	729.71	Joback Method
cpg	451.86	J/mol×K	767.80	Joback Method
cpg	463.15	J/mol×K	805.90	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=C370763&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
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