Phenol, 4-(1-phenylethyl)-

Other names:	Phenol, p-(«alpha»-methylbenzyl)-
	1-(4-Hydroxyphenyl)-1-phenylethane
	1-Phenyl-1-(4-hydroxyphenyl)ethane
	4-(«alpha»-Methylbenzyl)phenol
	4-(Phenylethylidene)phenol
	4-(1-Phenylethyl)phenol
	4-(1-Fenylethyl)fenol
	p-(«alpha»-Methylbenzyl)phenol
	Styrolfenol
	NSC 1859
	NSC 60586
	p-(1-phenylethyl)phenol
Inchi:	InChI=1S/C14H14O/c1-11(12-5-3-2-4-6-12)13-7-9-14(15)10-8-13/h2-11,15H,1H3
InchiKey:	XHASMJXNUHCHBL-UHFFFAOYSA-N
Formula:	C14H14O
SMILES:	CC(c1ccccc1)c1ccc(O)cc1
Mol. weight [g/mol]:	198.26
CAS:	1988-89-2

Physical Properties

Property code	Value	Unit	Source
gf	134.76	kJ/mol	Joback Method
hf	-41.82	kJ/mol	Joback Method
hfus	22.36	kJ/mol	Joback Method
hvap	63.94	kJ/mol	Joback Method
log10ws	-3.50		Crippen Method
logp	3.544		Crippen Method
mcvol	166.470	ml/mol	McGowan Method
pc	3291.59	kPa	Joback Method
tb	653.26	K	Joback Method
tc	907.43	K	Joback Method
tf	397.10	K	Joback Method
vc	0.564	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	427.10	J/mol×K	653.26	Joback Method
cpg	442.76	J/mol×K	695.62	Joback Method
cpg	457.16	J/mol×K	737.98	Joback Method
cpg	470.46	J/mol×K	780.35	Joback Method
cpg	482.79	J/mol×K	822.71	Joback Method
cpg	494.33	J/mol×K	865.07	Joback Method
cpg	505.21	J/mol×K	907.43	Joback Method
dvisc	0.0004594	Pa×s	439.79	Joback Method
dvisc	0.0012972	Pa×s	397.10	Joback Method
dvisc	0.0001955	Pa×s	482.49	Joback Method
dvisc	0.0000956	Pa×s	525.18	Joback Method
dvisc	0.0000521	Pa×s	567.87	Joback Method
dvisc	0.0000309	Pa×s	610.57	Joback Method
dvisc	0.0000196	Pa×s	653.26	Joback Method
hvapt	90.80	kJ/mol	482.00	NIST Webbook
hvapt	75.40	kJ/mol	485.00	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C1988892&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

hvapt:	Enthalpy of vaporization at a given temperature
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