Phenol, 3-(2-phenylethyl)-

Other names:	Phenol, m-phenethyl-
	1-m-Hydroxyphenyl-2-phenylethane
	3-(2-Phenylethyl)phenol
	1-(3-Hydroxyphenyl)-2-phenylethane
Inchi:	InChI=1S/C14H14O/c15-14-8-4-7-13(11-14)10-9-12-5-2-1-3-6-12/h1-8,11,15H,9-10H2
InchiKey:	AIHZDRMFOVBNAV-UHFFFAOYSA-N
Formula:	C14H14O
SMILES:	Oc1cccc(CCc2ccccc2)c1
Mol. weight [g/mol]:	198.26
CAS:	33675-75-1

Physical Properties

Property code	Value	Unit	Source
gf	137.20	kJ/mol	Joback Method
hf	-36.54	kJ/mol	Joback Method
hfus	25.88	kJ/mol	Joback Method
hvap	64.32	kJ/mol	Joback Method
ie	8.30 ± 0.10	eV	NIST Webbook
log10ws	-3.44		Crippen Method
logp	3.177		Crippen Method
mcvol	166.470	ml/mol	McGowan Method
pc	3261.58	kPa	Joback Method
rinpol	307.33		NIST Webbook
rinpol	307.33		NIST Webbook
tb	653.70	K	Joback Method
tc	902.41	K	Joback Method
tf	412.10	K	Joback Method
vc	0.570	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	426.59	J/mol×K	653.70	Joback Method
cpg	441.88	J/mol×K	695.15	Joback Method

cpg	455.97	J/mol×K	736.60	Joback Method
cpg	469.01	J/mol×K	778.06	Joback Method
cpg	481.14	J/mol×K	819.51	Joback Method
cpg	492.51	J/mol×K	860.96	Joback Method
cpg	503.27	J/mol×K	902.41	Joback Method
dvisc	0.0009169	Pa×s	412.10	Joback Method
dvisc	0.0003694	Pa×s	452.37	Joback Method
dvisc	0.0001727	Pa×s	492.63	Joback Method
dvisc	0.0000906	Pa×s	532.90	Joback Method
dvisc	0.0000520	Pa×s	573.17	Joback Method
dvisc	0.0000321	Pa×s	613.43	Joback Method
dvisc	0.0000210	Pa×s	653.70	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C33675751&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point

vc: Critical Volume

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