Phenol, 2,4-bis(1-phenylethyl)-

Other names: 2,4-bis(1-phenylethyl)phenol
Inchi: InChI=1S/C22H22O/c1-16(18-9-5-3-6-10-18)20-13-14-22(23)21(15-20)17(2)19-11-7-4-8-
InchiKey: RCFAHSGZAAFQJH-UHFFFAOYSA-N
Formula: C22H22O
SMILES: CC(c1ccccc1)c1ccc(O)c(C(C)c2ccccc2)c1
Mol. weight [g/mol]: 302.41
CAS: 2769-94-0

Physical Properties

Property code	Value	Unit	Source
gf	302.46	kJ/mol	Joback Method
hf	12.84	kJ/mol	Joback Method
hfus	33.21	kJ/mol	Joback Method
hvap	84.29	kJ/mol	Joback Method
log10ws	-5.99		Crippen Method
logp	5.696		Crippen Method
mcvol	255.430	ml/mol	McGowan Method
pc	2090.75	kPa	Joback Method
rinpol	2426.00		NIST Webbook
tb	867.52	K	Joback Method
tc	1128.60	K	Joback Method
tf	511.20	K	Joback Method
vc	0.897	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	770.05	J/mol×K	867.52	Joback Method
cpg	787.19	J/mol×K	911.03	Joback Method
cpg	803.28	J/mol×K	954.55	Joback Method
cpg	818.55	J/mol×K	998.06	Joback Method
cpg	833.20	J/mol×K	1041.57	Joback Method
cpg	847.45	J/mol×K	1085.09	Joback Method
cpg	861.52	J/mol×K	1128.60	Joback Method

dvisc	0.0001813	Pa×s	511.20	Joback Method
dvisc	0.0000652	Pa×s	570.59	Joback Method
dvisc	0.0000285	Pa×s	629.97	Joback Method
dvisc	0.0000143	Pa×s	689.36	Joback Method
dvisc	0.0000080	Pa×s	748.75	Joback Method
dvisc	0.0000049	Pa×s	808.13	Joback Method
dvisc	0.0000032	Pa×s	867.52	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=C2769940&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume