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

Other names: 2,4-Bis(dimethylbenzyl)phenol
2,4-Bis(1-methyl-1-phenylethyl)phenol
2,4-Bis(2-phenylpropan-2-yl)phenol
Inchi: InChI=1S/C24H26O/c1-23(2,18-11-7-5-8-12-18)20-15-16-22(25)21(17-20)24(3,4)19-13-9
InchiKey: FMUYQRFTLHAARI-UHFFFAOYSA-N
Formula: C24H26O
SMILES: CC(C)(c1ccccc1)c1ccc(O)c(C(C)(C)c2ccccc2)c1
Mol. weight [g/mol]: 330.46
CAS: 2772-45-4

Physical Properties

Property code	Value	Unit	Source
gf	329.86	kJ/mol	Joback Method
hf	-35.38	kJ/mol	Joback Method
hfus	30.61	kJ/mol	Joback Method
hvap	86.93	kJ/mol	Joback Method
log10ws	-6.24		Crippen Method
logp	6.044		Crippen Method
mcvol	283.610	ml/mol	McGowan Method
pc	1800.03	kPa	Joback Method
rinpol	2527.50		NIST Webbook
rinpol	2488.00		NIST Webbook
rinpol	2527.50		NIST Webbook
tb	907.70	K	Joback Method
tc	1175.09	K	Joback Method
tf	568.58	K	Joback Method
vc	1.000	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	887.30	J/mol×K	907.70	Joback Method
cpg	974.27	J/mol×K	1130.52	Joback Method
cpg	957.07	J/mol×K	1085.96	Joback Method

cpg	940.10	J/mol×K	1041.39	Joback Method
cpg	923.03	J/mol×K	996.83	Joback Method
cpg	905.53	J/mol×K	952.26	Joback Method
cpg	992.00	J/mol×K	1175.09	Joback Method
dvisc	0.0000016	Pa×s	907.70	Joback Method
dvisc	0.0000024	Pa×s	851.18	Joback Method
dvisc	0.0000038	Pa×s	794.66	Joback Method
dvisc	0.0000065	Pa×s	738.14	Joback Method
dvisc	0.0000123	Pa×s	681.62	Joback Method
dvisc	0.0000258	Pa×s	625.10	Joback Method
dvisc	0.0000631	Pa×s	568.58	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2772454&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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