Methanone, bis(2,4-dihydroxyphenyl)-

Other names:	2,2',4,4'-Tetrahydroxy diphenyl ketone
	2,2',4,4'-tetrahydroxybenzophenone
	2,4,2',4'-tetrahydroxybenzophenone
	Benzophenone-2
	Bis(2,4-dihydroxyphenyl)methanone
	NSC 38556
	Uvinol D-50
	Uvinul D-50
	benzophenone, 2,2',4,4'-tetrahydroxy-
Inchi:	InChI=1S/C13H10O5/c14-7-1-3-9(11(16)5-7)13(18)10-4-2-8(15)6-12(10)17/h1-6,14-17H
InchiKey:	WXNRYSGJLQFHBR-UHFFFAOYSA-N
Formula:	C13H10O5
SMILES:	O=C(c1ccc(O)cc1O)c1ccc(O)cc1O
Mol. weight [g/mol]:	246.22
CAS:	131-55-5

Physical Properties

Property code	Value	Unit	Source
gf	-464.00	kJ/mol	Joback Method
hf	-660.41	kJ/mol	Joback Method
hfus	42.24	kJ/mol	Joback Method
hvap	107.89	kJ/mol	Joback Method
log10ws	-1.62		Crippen Method
logp	1.740		Crippen Method
mcvol	171.560	ml/mol	McGowan Method
pc	7627.62	kPa	Joback Method
tb	926.55	K	Joback Method
tc	1201.40	K	Joback Method
tf	785.92	K	Joback Method
vc	0.417	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	510.04	J/mol×K	926.55	Joback Method
cpg	523.11	J/mol×K	972.36	Joback Method
cpg	537.61	J/mol×K	1018.17	Joback Method
cpg	553.96	J/mol×K	1063.98	Joback Method
cpg	572.56	J/mol×K	1109.78	Joback Method
cpg	593.85	J/mol×K	1155.59	Joback Method
cpg	618.22	J/mol×K	1201.40	Joback Method
dvisc	3.9862277e-09	Pa×s	809.36	Joback Method
dvisc	6.1797703e-09	Pa×s	785.92	Joback Method
dvisc	2.6355407e-09	Pa×s	832.80	Joback Method
dvisc	1.7824406e-09	Pa×s	856.23	Joback Method
dvisc	1.2308687e-09	Pa×s	879.67	Joback Method
dvisc	8.6647294e-10	Pa×s	903.11	Joback Method
dvisc	6.2088544e-10	Pa×s	926.55	Joback Method
hfust	28.00	kJ/mol	472.00	NIST Webbook
hsubt	143.40	kJ/mol	417.00	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C131555&Units=SI

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Solubilities of Polyhydroxybenzophenones in an Ethanol + Water Mixture from (293.15 to 343.15) K: https://www.doi.org/10.1021/je800388y

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

hfust: Enthalpy of fusion at a given temperature

hsubt: Enthalpy of sublimation at a given temperature

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume