Benzophenone, 2-hydroxy-4-decycloxy-

Other names: 4-decyloxy-2-hydroxybenzophenone
Inchi: InChI=1S/C23H30O3/c1-2-3-4-5-6-7-8-12-17-26-20-15-16-21(22(24)18-20)23(25)19-13-1
InchiKey: JQSSXIRDGUMPNP-UHFFFAOYSA-N
Formula: C23H30O3
SMILES: CCCCCCCCCCOc1ccc(C(=O)c2ccccc2)c(O)c1
Mol. weight [g/mol]: 354.48
CAS: 2162-63-2

Physical Properties

Property code	Value	Unit	Source
gf	-30.57	kJ/mol	Joback Method
hf	-478.57	kJ/mol	Joback Method
hfus	51.59	kJ/mol	Joback Method
hvap	94.18	kJ/mol	Joback Method
log10ws	-6.86		Crippen Method
logp	6.143		Crippen Method
mcvol	300.720	ml/mol	McGowan Method
pc	1497.67	kPa	Joback Method
tb	940.89	K	Joback Method
tc	1165.25	K	Joback Method
tf	598.21	K	Joback Method
vc	1.097	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	970.52	J/mol×K	940.89	Joback Method
cpg	986.74	J/mol×K	978.28	Joback Method
cpg	1002.13	J/mol×K	1015.68	Joback Method
cpg	1016.79	J/mol×K	1053.07	Joback Method
cpg	1030.84	J/mol×K	1090.47	Joback Method
cpg	1044.39	J/mol×K	1127.86	Joback Method
cpg	1057.55	J/mol×K	1165.25	Joback Method
dvisc	0.0000513	Pa×s	598.21	Joback Method

dvisc	0.0000234	Pa×s	655.32	Joback Method
dvisc	0.0000122	Pa×s	712.44	Joback Method
dvisc	0.0000069	Pa×s	769.55	Joback Method
dvisc	0.0000043	Pa×s	826.66	Joback Method
dvisc	0.0000028	Pa×s	883.78	Joback Method
dvisc	0.0000019	Pa×s	940.89	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2162632&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
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