

# Methanone, (2,4-dihydroxyphenyl)phenyl-

<b>Other names:</b>	(2,4-Dihydroxyphenyl)phenylmethanone 2,4-Dihydroxybenzofenon 2,4-dihydroxybenzophenone 4-Benzoylresorcinol Acrylamide, n-[2-(dimethylamino)ethyl]-2,3-diphenyl-, monohydrochloride Advastab 48 Benzophenone-1 Benzoresorcinol Dastib 263 Eastman inhibitor DHBP HHB Inhibitor DHBP NSC 38555 Quinsorb 010 Resbenzophenone Syntase 100 UF 1 USAF DO-28 USAF ND-54 UV 12 Uvinol 400 Uvinul 400 Uvistat 12 benzophenone, 2,4-dihydroxy-
<b>Inchi:</b>	InChI=1S/C13H10O3/c14-10-6-7-11(12(15)8-10)13(16)9-4-2-1-3-5-9/h1-8,14-15H
<b>InchiKey:</b>	ZXDDPOHVAMWLH-UHFFFAOYSA-N
<b>Formula:</b>	C13H10O3
<b>SMILES:</b>	O=C(c1ccccc1)c1ccc(O)cc1O
<b>Mol. weight [g/mol]:</b>	214.22
<b>CAS:</b>	131-56-6

## Physical Properties

Property code	Value	Unit	Source
chs	-6052.00 ± 1.90	kJ/mol	NIST Webbook
gf	-154.76	kJ/mol	Joback Method
hf	-305.79	kJ/mol	Joback Method

hfs	-492.80 ± 1.90	kJ/mol	NIST Webbook
hfus	30.67	kJ/mol	Joback Method
hvap	81.86	kJ/mol	Joback Method
log10ws	-2.53		Crippen Method
logp	2.329		Crippen Method
mcvol	159.820	ml/mol	McGowan Method
pc	4802.50	kPa	Joback Method
tb	765.31	K	Joback Method
tc	1031.56	K	Joback Method
tf	562.48	K	Joback Method
vc	0.485	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	494.45	J/mol×K	1031.56	Joback Method
cpg	431.58	J/mol×K	765.31	Joback Method
cpg	442.67	J/mol×K	809.69	Joback Method
cpg	453.20	J/mol×K	854.06	Joback Method
cpg	463.41	J/mol×K	898.44	Joback Method
cpg	473.53	J/mol×K	942.81	Joback Method
cpg	483.79	J/mol×K	987.19	Joback Method
dvisc	0.0000010	Paxs	765.31	Joback Method
dvisc	0.0000259	Paxs	562.48	Joback Method
dvisc	0.0000129	Paxs	596.28	Joback Method
dvisc	0.0000070	Paxs	630.09	Joback Method
dvisc	0.0000040	Paxs	663.89	Joback Method
dvisc	0.0000024	Paxs	697.70	Joback Method
dvisc	0.0000015	Paxs	731.50	Joback Method
hsbt	134.00	kJ/mol	332.50	NIST Webbook
hvapt	87.10	kJ/mol	451.50	NIST Webbook

## Sources

**Crippen Method:**

[https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)

**Deduction of Physicochemical Properties from Solubilities:**

<https://www.doi.org/10.1021/je501140p>

**Solubility of Benzophenone, Biotin, Poly(hydroxybenzene), Examples in an Eyring Plot Method: Water Mixture from (293.15 to 343.15) K:**

<https://www.doi.org/10.1021/je800388y>

[https://en.wikipedia.org/wiki/Joback\\_method](https://en.wikipedia.org/wiki/Joback_method)

<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C131566&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C131566&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>

## Legend

<b>chs:</b>	Standard solid enthalpy of combustion
<b>cpg:</b>	Ideal gas heat capacity
<b>dvisc:</b>	Dynamic viscosity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfs:</b>	Solid phase enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hsubt:</b>	Enthalpy of sublimation at a given temperature
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>hvapt:</b>	Enthalpy of vaporization at a given temperature
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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