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

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|---|---|
| **Other names:** | Benzophenone, 2,4,4'-trihydroxy- |
| | 2,4-Dihydroxyphenyl p-hydroxybenzyl ketone |
| | 2,4,4'-Trihydroxybenzophenone |
| **Inchi:** | InChI=1S/C13H10O4/c14-9-3-1-8(2-4-9)13(17)11-6-5-10(15)7-12(11)16/h1-7,14-16H |
| **InchiKey:** | OKJFKPFBSPZTAH-UHFFFAOYSA-N |
| **Formula:** | C13H10O4 |
| **SMILES:** | O=C(c1ccc(O)cc1)c1ccc(O)cc1O |
| **Mol. weight [g/mol]:** | 230.22 |
| **CAS:** | 1470-79-7 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -309.38 | kJ/mol | Joback Method |
| hf | -483.10 | kJ/mol | Joback Method |
| hfus | 36.46 | kJ/mol | Joback Method |
| hvap | 94.87 | kJ/mol | Joback Method |
| log10ws | -2.07 | | Crippen Method |
| logp | 2.034 | | Crippen Method |
| mcvol | 165.690 | ml/mol | McGowan Method |
| pc | 5972.16 | kPa | Joback Method |
| tb | 845.93 | K | Joback Method |
| tc | 1116.79 | K | Joback Method |
| tf | 674.20 | K | Joback Method |
| vc | 0.452 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 546.24 | J/mol×K | 1116.79 | Joback Method |
| cpg | 530.75 | J/mol×K | 1071.65 | Joback Method |
| cpg | 516.82 | J/mol×K | 1026.50 | Joback Method |
| cpg | 504.13 | J/mol×K | 981.36 | Joback Method |
| cpg | 492.36 | J/mol×K | 936.22 | Joback Method |
| cpg | 481.19 | J/mol×K | 891.07 | Joback Method |

| | | | | |
|---|---|---|---|---|
| cpg | 470.29 | J/mol×K | 845.93 | Joback Method |
| dvisc | 0.0000005 | Pa×s | 674.20 | Joback Method |
| dvisc | 3.0254579e-08 | Pa×s | 845.93 | Joback Method |
| dvisc | 4.4620809e-08 | Pa×s | 817.31 | Joback Method |
| dvisc | 6.7691086e-08 | Pa×s | 788.69 | Joback Method |
| dvisc | 0.0000001 | Pa×s | 760.07 | Joback Method |
| dvisc | 0.0000002 | Pa×s | 731.44 | Joback Method |
| dvisc | 0.0000003 | Pa×s | 702.82 | Joback Method |
| hfust | 31.30 | kJ/mol | 482.60 | NIST Webbook |

# Sources

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|---|---|
| **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 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C1470797&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# 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 |
| **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 |

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https://www.chemeo.com/cid/91-730-0/Methanone-2-4-dihydroxyphenyl-4-hydroxyphenyl.pdf

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