# 2,3-dichloro-4-hydroxybenzaldehyde

**Other names:** Benzaldehyde, 2,3-dichloro-4-hydroxy
**Inchi:** InChI=1S/C7H4Cl2O2/c8-6-4(3-10)1-2-5(11)7(6)9/h1-3,11H
**InchiKey:** GEORDJYJYUGGSO-UHFFFAOYSA-N
**Formula:** C7H4Cl2O2
**SMILES:** O=Cc1ccc(O)c(Cl)c1Cl
**Mol. weight [g/mol]:** 191.01

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -176.79 | kJ/mol | Joback Method |
| hf | -268.59 | kJ/mol | Joback Method |
| hfus | 23.62 | kJ/mol | Joback Method |
| hvap | 63.28 | kJ/mol | Joback Method |
| log10ws | -2.63 | | Crippen Method |
| logp | 2.511 | | Crippen Method |
| mcvol | 117.650 | ml/mol | McGowan Method |
| pc | 4822.53 | kPa | Joback Method |
| rinpol | 1474.00 | | NIST Webbook |
| rinpol | 1463.00 | | NIST Webbook |
| rinpol | 1463.00 | | NIST Webbook |
| rinpol | 1479.00 | | NIST Webbook |
| rinpol | 1467.00 | | NIST Webbook |
| rinpol | 1463.00 | | NIST Webbook |
| rinpol | 1455.00 | | NIST Webbook |
| rinpol | 1463.00 | | NIST Webbook |
| rinpol | 1463.00 | | NIST Webbook |
| tb | 600.34 | K | Joback Method |
| tc | 844.92 | K | Joback Method |
| tf | 433.67 | K | Joback Method |
| vc | 0.401 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|

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|---|---|---|---|---|
| cpg | 234.27 | J/mol×K | 600.34 | Joback Method |
| cpg | 241.01 | J/mol×K | 641.10 | Joback Method |
| cpg | 247.21 | J/mol×K | 681.87 | Joback Method |
| cpg | 252.93 | J/mol×K | 722.63 | Joback Method |
| cpg | 258.26 | J/mol×K | 763.39 | Joback Method |
| cpg | 263.28 | J/mol×K | 804.16 | Joback Method |
| cpg | 268.07 | J/mol×K | 844.92 | Joback Method |
| dvisc | 0.0007061 | Pa×s | 433.67 | Joback Method |
| dvisc | 0.0004081 | Pa×s | 461.45 | Joback Method |
| dvisc | 0.0002511 | Pa×s | 489.23 | Joback Method |
| dvisc | 0.0001627 | Pa×s | 517.00 | Joback Method |
| dvisc | 0.0001102 | Pa×s | 544.78 | Joback Method |
| dvisc | 0.0000776 | Pa×s | 572.56 | Joback Method |
| dvisc | 0.0000564 | Pa×s | 600.34 | Joback Method |

# Sources

**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=R45514&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
**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