# diethyl 2-hydroxypentanedioate

**Inchi:** InChI=1S/C8H14O6/c1-3-13-8(11)6(9)4-5-7(10)14-12-2/h6,9H,3-5H2,1-2H3
**InchiKey:** WTSHYIUOXHQWGT-UHFFFAOYSA-N
**Formula:** C8H14O6
**SMILES:** CCOC(=O)C(O)CCC(=O)OOC
**Mol. weight [g/mol]:** 206.19

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -695.62 | kJ/mol | Joback Method |
| hf | -987.78 | kJ/mol | Joback Method |
| hfus | 23.80 | kJ/mol | Joback Method |
| hvap | 70.41 | kJ/mol | Joback Method |
| log10ws | -0.35 | | Crippen Method |
| logp | -0.205 | | Crippen Method |
| mcvol | 150.200 | ml/mol | McGowan Method |
| pc | 3049.04 | kPa | Joback Method |
| ripol | 2115.00 | | NIST Webbook |
| ripol | 2171.00 | | NIST Webbook |
| ripol | 2171.00 | | NIST Webbook |
| tb | 649.18 | K | Joback Method |
| tc | 827.87 | K | Joback Method |
| tf | 392.29 | K | Joback Method |
| vc | 0.562 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 396.94 | J/mol×K | 649.18 | Joback Method |
| cpg | 407.10 | J/mol×K | 678.96 | Joback Method |
| cpg | 416.80 | J/mol×K | 708.74 | Joback Method |
| cpg | 426.03 | J/mol×K | 738.53 | Joback Method |
| cpg | 434.78 | J/mol×K | 768.31 | Joback Method |
| cpg | 443.04 | J/mol×K | 798.09 | Joback Method |
| cpg | 450.78 | J/mol×K | 827.87 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0019190 | Pa×s | 392.29 | Joback Method |
| dvisc | 0.0007625 | Pa×s | 435.11 | Joback Method |
| dvisc | 0.0003574 | Pa×s | 477.92 | Joback Method |
| dvisc | 0.0001898 | Pa×s | 520.74 | Joback Method |
| dvisc | 0.0001109 | Pa×s | 563.55 | Joback Method |
| dvisc | 0.0000700 | Pa×s | 606.37 | Joback Method |
| dvisc | 0.0000469 | Pa×s | 649.18 | 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=R325721&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 |
| **ripol:** | Polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |