# Meso-2,3-diethylbutanedioic acid

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|---|---|
| **Inchi:** | InChI=1S/C8H14O4/c1-3-5(7(9)10)6(4-2)8(11)12/h5-6H,3-4H2,1-2H3,(H,9,10)(H,11,12)/t |
| **InchiKey:** | KJXMXCRSMLOXBM-OLQVQODUSA-N |
| **Formula:** | C8H14O4 |
| **SMILES:** | CCC(C(=O)O)C(CC)C(=O)O |
| **Mol. weight [g/mol]:** | 174.19 |
| **CAS:** | 35392-80-4 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| chs | -4130.00 | kJ/mol | NIST Webbook |
| gf | -519.88 | kJ/mol | Joback Method |
| hf | -748.63 | kJ/mol | Joback Method |
| hfus | 20.80 | kJ/mol | Joback Method |
| hvap | 79.48 | kJ/mol | Joback Method |
| log10ws | -0.89 | | Crippen Method |
| logp | 1.208 | | Crippen Method |
| mcvol | 138.460 | ml/mol | McGowan Method |
| pc | 3628.97 | kPa | Joback Method |
| tb | 673.66 | K | Joback Method |
| tc | 851.26 | K | Joback Method |
| tf | 371.42 | K | Joback Method |
| vc | 0.521 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 373.77 | J/mol×K | 673.66 | Joback Method |
| cpg | 413.74 | J/mol×K | 821.66 | Joback Method |
| cpg | 406.62 | J/mol×K | 792.06 | Joback Method |
| cpg | 399.07 | J/mol×K | 762.46 | Joback Method |
| cpg | 391.09 | J/mol×K | 732.86 | Joback Method |
| cpg | 382.66 | J/mol×K | 703.26 | Joback Method |
| cpg | 420.46 | J/mol×K | 851.26 | Joback Method |
| dvisc | 0.0000206 | Pa×s | 673.66 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0000378 | Pa×s | 623.29 | Joback Method |
| dvisc | 0.0000774 | Pa×s | 572.91 | Joback Method |
| dvisc | 0.0001816 | Pa×s | 522.54 | Joback Method |
| dvisc | 0.0005115 | Pa×s | 472.17 | Joback Method |
| dvisc | 0.0018445 | Pa×s | 421.79 | Joback Method |
| dvisc | 0.0094190 | Pa×s | 371.42 | Joback Method |

# Sources

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|---|---|
| **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 |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C35392804&Units=SI |

# Legend

| | |
|---|---|
| **chs:** | Standard solid enthalpy of combustion |
| **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 |

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