# Methyl 2-hydroxydodecanoate

**Inchi:** InChI=1S/C13H26O3/c1-3-4-5-6-7-8-9-10-11-12(14)13(15)16-2/h12,14H,3-11H2,1-2H3
**InchiKey:** NHEBEMJQYBPWNA-UHFFFAOYSA-N
**Formula:** C13H26O3
**SMILES:** CCCCCCCCCCC(O)C(=O)OC
**Mol. weight [g/mol]:** 230.34
**CAS:** 51067-85-7

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -314.60 | kJ/mol | Joback Method |
| hf | -713.96 | kJ/mol | Joback Method |
| hfus | 32.78 | kJ/mol | Joback Method |
| hvap | 69.98 | kJ/mol | Joback Method |
| log10ws | -3.50 | | Crippen Method |
| logp | 3.051 | | Crippen Method |
| mcvol | 207.340 | ml/mol | McGowan Method |
| pc | 1857.91 | kPa | Joback Method |
| rinpol | 1619.00 | | NIST Webbook |
| rinpol | 1627.00 | | NIST Webbook |
| rinpol | 1619.00 | | NIST Webbook |
| rinpol | 1627.00 | | NIST Webbook |
| tb | 664.87 | K | Joback Method |
| tc | 833.68 | K | Joback Method |
| tf | 354.25 | K | Joback Method |
| vc | 0.800 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 583.63 | J/mol×K | 664.87 | Joback Method |
| cpg | 598.06 | J/mol×K | 693.00 | Joback Method |
| cpg | 611.86 | J/mol×K | 721.14 | Joback Method |
| cpg | 625.04 | J/mol×K | 749.27 | Joback Method |
| cpg | 637.60 | J/mol×K | 777.41 | Joback Method |

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|---|---|---|---|---|
| cpg | 649.56 | J/mol×K | 805.54 | Joback Method |
| cpg | 660.93 | J/mol×K | 833.68 | Joback Method |
| dvisc | 0.0051687 | Pa×s | 354.25 | Joback Method |
| dvisc | 0.0013843 | Pa×s | 406.02 | Joback Method |
| dvisc | 0.0004994 | Pa×s | 457.79 | Joback Method |
| dvisc | 0.0002217 | Pa×s | 509.56 | Joback Method |
| dvisc | 0.0001143 | Pa×s | 561.33 | Joback Method |
| dvisc | 0.0000659 | Pa×s | 613.10 | Joback Method |
| dvisc | 0.0000414 | Pa×s | 664.87 | Joback Method |

# Sources

**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=C51067857&Units=SI

# 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