# 9-Decenyl butyrate

**Other names:** 9-Decen-1-yl butyrate
**Inchi:** InChI=1S/C14H26O2/c1-3-5-6-7-8-9-10-11-13-16-14(15)12-4-2/h3H,1,4-13H2,2H3
**InchiKey:** OXQAEUZRQIWLGZ-UHFFFAOYSA-N
**Formula:** C14H26O2
**SMILES:** C=CCCCCCCCCOC(=O)CCC
**Mol. weight [g/mol]:** 226.35

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -79.08 | kJ/mol | Joback Method |
| hf | -451.66 | kJ/mol | Joback Method |
| hfus | 33.52 | kJ/mol | Joback Method |
| hvap | 55.24 | kJ/mol | Joback Method |
| log10ws | -4.40 | | Crippen Method |
| logp | 4.246 | | Crippen Method |
| mcvol | 211.260 | ml/mol | McGowan Method |
| pc | 1633.81 | kPa | Joback Method |
| rinpol | 1563.00 | | NIST Webbook |
| rinpol | 1558.00 | | NIST Webbook |
| rinpol | 1558.00 | | NIST Webbook |
| rinpol | 1563.00 | | NIST Webbook |
| ripol | 1870.00 | | NIST Webbook |
| tb | 592.69 | K | Joback Method |
| tc | 763.14 | K | Joback Method |
| tf | 317.94 | K | Joback Method |
| vc | 0.825 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 545.69 | J/mol×K | 592.69 | Joback Method |
| cpg | 562.09 | J/mol×K | 621.10 | Joback Method |
| cpg | 577.79 | J/mol×K | 649.51 | Joback Method |
| cpg | 592.82 | J/mol×K | 677.92 | Joback Method |

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|---|---|---|---|---|
| cpg | 607.19 | J/mol×K | 706.32 | Joback Method |
| cpg | 620.91 | J/mol×K | 734.73 | Joback Method |
| cpg | 634.00 | J/mol×K | 763.14 | Joback Method |
| dvisc | 0.0026588 | Pa×s | 317.94 | Joback Method |
| dvisc | 0.0012373 | Pa×s | 363.73 | Joback Method |
| dvisc | 0.0006832 | Pa×s | 409.52 | Joback Method |
| dvisc | 0.0004251 | Pa×s | 455.31 | Joback Method |
| dvisc | 0.0002885 | Pa×s | 501.11 | Joback Method |
| dvisc | 0.0002089 | Pa×s | 546.90 | Joback Method |
| dvisc | 0.0001590 | Pa×s | 592.69 | Joback Method |

# Sources

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772
**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=R409359&Units=SI
**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

# 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
**ripol:** Polar retention indices
**tb:** Normal Boiling Point Temperature
**tc:** Critical Temperature
**tf:** Normal melting (fusion) point
**vc:** Critical Volume