# Pentyl (E)-2-methylbut-2-enoate

**Other names:** Amyl tiglate
Pentyl tiglate
**Inchi:** InChI=1S/C10H18O2/c1-4-6-7-8-12-10(11)9(3)5-2/h5H,4,6-8H2,1-3H3/b9-5+
**InchiKey:** XJWDRSSGOHXOLQ-WEVVVXLNSA-N
**Formula:** C10H18O2
**SMILES:** CC=C(C)C(=O)OCCCCC
**Mol. weight [g/mol]:** 170.25

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -128.93 | kJ/mol | Joback Method |
| hf | -387.10 | kJ/mol | Joback Method |
| hfus | 23.34 | kJ/mol | Joback Method |
| hvap | 47.05 | kJ/mol | Joback Method |
| log10ws | -2.72 | | Crippen Method |
| logp | 2.686 | | Crippen Method |
| mcvol | 154.900 | ml/mol | McGowan Method |
| pc | 2322.54 | kPa | Joback Method |
| rinpol | 1232.00 | | NIST Webbook |
| rinpol | 1232.00 | | NIST Webbook |
| rinpol | 1174.00 | | NIST Webbook |
| rinpol | 1216.00 | | NIST Webbook |
| rinpol | 1174.00 | | NIST Webbook |
| rinpol | 1174.00 | | NIST Webbook |
| ripol | 1519.00 | | NIST Webbook |
| ripol | 1519.00 | | NIST Webbook |
| tb | 508.53 | K | Joback Method |
| tc | 691.44 | K | Joback Method |
| tf | 255.58 | K | Joback Method |
| vc | 0.601 | m3/kmol | Joback Method |

# Temperature Dependent Properties

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

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|---|---|---|---|---|
| cpg | 350.59 | J/mol×K | 508.53 | Joback Method |
| cpg | 364.62 | J/mol×K | 539.01 | Joback Method |
| cpg | 378.03 | J/mol×K | 569.50 | Joback Method |
| cpg | 390.86 | J/mol×K | 599.98 | Joback Method |
| cpg | 403.11 | J/mol×K | 630.47 | Joback Method |
| cpg | 414.81 | J/mol×K | 660.95 | Joback Method |
| cpg | 425.96 | J/mol×K | 691.44 | 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=U373726&Units=SI |

# Legend

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|---|---|
| **cpg:** | Ideal gas heat capacity |
| **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 |