# 2-Pentene, 4,4-dimethyl-

**Other names:** 4,4-Dimethyl-2-pentene
CH3CH=CHC(CH3)3
**Inchi:** InChI=1S/C7H14/c1-5-6-7(2,3)4/h5-6H,1-4H3
**InchiKey:** BIDIHFPLDRSAMB-UHFFFAOYSA-N
**Formula:** C7H14
**SMILES:** CC=CC(C)(C)C
**Mol. weight [g/mol]:** 98.19
**CAS:** 26232-98-4

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 91.12 | kJ/mol | Joback Method |
| hf | -79.34 | kJ/mol | Joback Method |
| hfus | 6.67 | kJ/mol | Joback Method |
| hvap | 29.84 | kJ/mol | Joback Method |
| log10ws | -2.36 | | Crippen Method |
| logp | 2.609 | | Crippen Method |
| mcvol | 105.190 | ml/mol | McGowan Method |
| pc | 3022.28 | kPa | Joback Method |
| rinpol | 644.00 | | NIST Webbook |
| tb | 358.15 ± 3.00 | K | NIST Webbook |
| tb | 358.15 ± 3.00 | K | NIST Webbook |
| tb | 349.85 ± 1.50 | K | NIST Webbook |
| tb | 349.15 ± 0.50 | K | NIST Webbook |
| tb | 349.90 ± 0.60 | K | NIST Webbook |
| tc | 544.64 | K | Joback Method |
| tf | 154.29 ± 0.30 | K | NIST Webbook |
| vc | 0.397 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 180.91 | J/mol×K | 360.49 | Joback Method |
| cpg | 194.27 | J/mol×K | 391.18 | Joback Method |

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|---|---|---|---|---|
| cpg | 206.90 | J/mol×K | 421.87 | Joback Method |
| cpg | 218.84 | J/mol×K | 452.57 | Joback Method |
| cpg | 230.11 | J/mol×K | 483.26 | Joback Method |
| cpg | 240.74 | J/mol×K | 513.95 | Joback Method |
| cpg | 250.78 | J/mol×K | 544.64 | Joback Method |
| dvisc | 0.0108776 | Pa×s | 165.99 | Joback Method |
| dvisc | 0.0033838 | Pa×s | 198.41 | Joback Method |
| dvisc | 0.0014612 | Pa×s | 230.82 | Joback Method |
| dvisc | 0.0007760 | Pa×s | 263.24 | Joback Method |
| dvisc | 0.0004734 | Pa×s | 295.66 | Joback Method |
| dvisc | 0.0003185 | Pa×s | 328.07 | Joback Method |
| dvisc | 0.0002301 | Pa×s | 360.49 | Joback Method |

# Sources

**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C26232984&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
**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772

# 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