# 1-Butene, 1-chloro-2-methyl-

**Other names:** 1-Chloro-2-methyl-1-butene, trans
**Inchi:** InChI=1S/C5H9Cl/c1-3-5(2)4-6/h4H,3H2,1-2H3/b5-4+
**InchiKey:** KRGLOJFYIVYYDI-SNAWJCMRSA-N
**Formula:** C5H9Cl
**SMILES:** CCC(C)=CCl
**Mol. weight [g/mol]:** 104.58
**CAS:** 23378-11-2

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 50.96 | kJ/mol | Joback Method |
| hf | -54.84 | kJ/mol | Joback Method |
| hfus | 11.79 | kJ/mol | Joback Method |
| hvap | 31.15 | kJ/mol | Joback Method |
| log10ws | -2.42 | | Crippen Method |
| logp | 2.539 | | Crippen Method |
| mcvol | 89.250 | ml/mol | McGowan Method |
| pc | 3551.53 | kPa | Joback Method |
| rinpol | 712.00 | | NIST Webbook |
| rinpol | 712.00 | | NIST Webbook |
| rinpol | 715.00 | | NIST Webbook |
| tb | 355.27 | K | Joback Method |
| tc | 541.10 | K | Joback Method |
| tf | 156.99 | K | Joback Method |
| vc | 0.345 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 136.97 | J/mol×K | 355.27 | Joback Method |
| cpg | 145.84 | J/mol×K | 386.24 | Joback Method |
| cpg | 154.27 | J/mol×K | 417.21 | Joback Method |
| cpg | 162.28 | J/mol×K | 448.19 | Joback Method |
| cpg | 169.87 | J/mol×K | 479.16 | Joback Method |

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|---|---|---|---|---|
| cpg | 177.09 | J/mol×K | 510.13 | Joback Method |
| cpg | 183.93 | J/mol×K | 541.10 | Joback Method |

# Sources

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|---|---|
| **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=C23378112&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |

# 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 |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |