# 2-Cyclohexen-1-one, 5-methyl-2-(1-methylethyl)-

**Other names:** p-Menth-4-en-3-one
2-Isopropyl-5-methyl-2-cyclohexen-1-one
**Inchi:** InChI=1S/C10H16O/c1-7(2)9-5-4-8(3)6-10(9)11/h5,7-8H,4,6H2,1-3H3
**InchiKey:** OAYBZGPDRAMDNF-UHFFFAOYSA-N
**Formula:** C10H16O
**SMILES:** CC1CC=C(C(C)C)C(=O)C1
**Mol. weight [g/mol]:** 152.23
**CAS:** 5113-66-6

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -46.93 | kJ/mol | Joback Method |
| hf | -292.08 | kJ/mol | Joback Method |
| hfus | 10.31 | kJ/mol | Joback Method |
| hvap | 43.10 | kJ/mol | Joback Method |
| log10ws | -2.55 | | Crippen Method |
| logp | 2.568 | | Crippen Method |
| mcvol | 138.170 | ml/mol | McGowan Method |
| pc | 2744.03 | kPa | Joback Method |
| rinpol | 1251.00 | | NIST Webbook |
| rinpol | 1251.00 | | NIST Webbook |
| tb | 519.27 | K | Joback Method |
| tc | 741.04 | K | Joback Method |
| tf | 276.34 | K | Joback Method |
| vc | 0.515 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 321.40 | J/mol×K | 519.27 | Joback Method |
| cpg | 339.21 | J/mol×K | 556.23 | Joback Method |
| cpg | 356.17 | J/mol×K | 593.19 | Joback Method |
| cpg | 372.28 | J/mol×K | 630.16 | Joback Method |
| cpg | 387.53 | J/mol×K | 667.12 | Joback Method |

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|---|---|---|---|---|
| cpg | 401.93 | J/mol×K | 704.08 | Joback Method |
| cpg | 415.47 | J/mol×K | 741.04 | Joback Method |

# Sources

| | |
|---|---|
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C5113666&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

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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 |