# 2(1H)-Naphthalenone, octahydro-8a-methyl-, trans-

**Other names:** 9«beta»-Methyl-2-decalone
trans-10-Methyl-2-decalone
**Inchi:** InChI=1S/C11H18O/c1-11-7-3-2-4-9(11)5-6-10(12)8-11/h9H,2-8H2,1H3
**InchiKey:** IDMWZWSMOJZNAC-UHFFFAOYSA-N
**Formula:** C11H18O
**SMILES:** CC12CCCCC1CCC(=O)C2
**Mol. weight [g/mol]:** 166.26
**CAS:** 1197-95-1

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -13.24 | kJ/mol | Joback Method |
| hf | -271.87 | kJ/mol | Joback Method |
| hfus | 5.33 | kJ/mol | Joback Method |
| hvap | 43.69 | kJ/mol | Joback Method |
| log10ws | -3.01 | | Crippen Method |
| logp | 2.936 | | Crippen Method |
| mcvol | 145.700 | ml/mol | McGowan Method |
| pc | 2973.04 | kPa | Joback Method |
| rinpol | 1368.00 | | NIST Webbook |
| tb | 549.70 | K | Joback Method |
| tc | 794.62 | K | Joback Method |
| tf | 327.65 | K | Joback Method |
| vc | 0.538 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 373.54 | J/mol×K | 549.70 | Joback Method |
| cpg | 395.39 | J/mol×K | 590.52 | Joback Method |
| cpg | 415.78 | J/mol×K | 631.34 | Joback Method |
| cpg | 434.87 | J/mol×K | 672.16 | Joback Method |
| cpg | 452.81 | J/mol×K | 712.98 | Joback Method |
| cpg | 469.77 | J/mol×K | 753.80 | Joback Method |

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|---|---|---|---|---|
| cpg | 485.88 | J/mol×K | 794.62 | 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=C1197951&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 |