# 3-Octene, 4-ethyl-

**Inchi:** InChI=1S/C10H20/c1-4-7-9-10(6-3)8-5-2/h8H,4-7,9H2,1-3H3/b10-8+
**InchiKey:** NOBLDEYGTBPLMF-CSKARUKUSA-N
**Formula:** C10H20
**SMILES:** CCC=C(CC)CCCC
**Mol. weight [g/mol]:** 140.27
**CAS:** 53966-51-1

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 104.99 | kJ/mol | Joback Method |
| hf | -142.30 | kJ/mol | Joback Method |
| hfus | 20.55 | kJ/mol | Joback Method |
| hvap | 37.89 | kJ/mol | Joback Method |
| log10ws | -3.86 | | Crippen Method |
| logp | 3.923 | | Crippen Method |
| mcvol | 147.460 | ml/mol | McGowan Method |
| pc | 2222.89 | kPa | Joback Method |
| tb | 434.15 ± 2.50 | K | NIST Webbook |
| tc | 605.63 | K | Joback Method |
| tf | 183.42 | K | Joback Method |
| vc | 0.577 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 300.23 | J/mol×K | 432.24 | Joback Method |
| cpg | 315.43 | J/mol×K | 461.14 | Joback Method |
| cpg | 329.98 | J/mol×K | 490.04 | Joback Method |
| cpg | 343.91 | J/mol×K | 518.94 | Joback Method |
| cpg | 357.23 | J/mol×K | 547.83 | Joback Method |
| cpg | 369.97 | J/mol×K | 576.73 | Joback Method |
| cpg | 382.16 | J/mol×K | 605.63 | 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=C53966511&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 |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |