# Cyclohexane, 1-propenyl-

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|---|---|
| **Other names:** | Cyclohexane, propenyl- |
| | Propene, 1-cyclohexyl- |
| | Propenylcyclohexane |
| | 1-Cyclohexyl-1-propene |
| | 1-Propene, 1-cyclohexyl- |
| **Inchi:** | InChI=1S/C9H16/c1-2-6-9-7-4-3-5-8-9/h2,6,9H,3-5,7-8H2,1H3/b6-2+ |
| **InchiKey:** | IAHIMVFWYADCJJ-QHHAFSJGSA-N |
| **Formula:** | C9H16 |
| **SMILES:** | CC=CC1CCCCC1 |
| **Mol. weight [g/mol]:** | 124.22 |
| **CAS:** | 5364-83-0 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 129.57 | kJ/mol | Joback Method |
| hf | -57.55 | kJ/mol | Joback Method |
| hfus | 11.10 | kJ/mol | Joback Method |
| hvap | 36.02 | kJ/mol | Joback Method |
| log10ws | -3.10 | | Crippen Method |
| logp | 3.143 | | Crippen Method |
| mcvol | 122.510 | ml/mol | McGowan Method |
| pc | 3002.44 | kPa | Joback Method |
| tb | 431.00 ± 6.00 | K | NIST Webbook |
| tb | 431.00 ± 6.00 | K | NIST Webbook |
| tc | 638.34 | K | Joback Method |
| tf | 193.49 | K | Joback Method |
| vc | 0.453 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 240.35 | J/mol×K | 429.03 | Joback Method |
| cpg | 258.81 | J/mol×K | 463.92 | Joback Method |
| cpg | 276.26 | J/mol×K | 498.80 | Joback Method |

| | | | | |
|---|---|---|---|---|
| cpg | 292.73 | J/mol×K | 533.69 | Joback Method |
| cpg | 308.26 | J/mol×K | 568.57 | Joback Method |
| cpg | 322.89 | J/mol×K | 603.46 | Joback Method |
| cpg | 336.66 | J/mol×K | 638.34 | Joback Method |
| dvisc | 0.0080809 | Pa×s | 193.49 | Joback Method |
| dvisc | 0.0026981 | Pa×s | 232.75 | Joback Method |
| dvisc | 0.0012364 | Pa×s | 272.00 | Joback Method |
| dvisc | 0.0006899 | Pa×s | 311.26 | Joback Method |
| dvisc | 0.0004387 | Pa×s | 350.52 | Joback Method |
| dvisc | 0.0003056 | Pa×s | 389.77 | Joback Method |
| dvisc | 0.0002274 | Pa×s | 429.03 | Joback Method |

# Sources

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772
**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C5364830&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

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

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