# 1H-Indene, octahydro-

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|---|---|
| **Other names:** | 1H-Indene, perhydro |
| | Bicyclo[4.3.0]nonane,c&t |
| | bicyclo[4.3.0]nonane |
| | hexahydroindan |
| | hexahydroindane |
| | hydrindan |
| | hydrindane |
| | indan, hexahydro- |
| | perhydroindene |
| **Inchi:** | InChI=1S/C9H16/c1-2-5-9-7-3-6-8(9)4-1/h8-9H,1-7H2 |
| **InchiKey:** | BNRNAKTVFSZAFA-UHFFFAOYSA-N |
| **Formula:** | C9H16 |
| **SMILES:** | C1CCC2CCCC2C1 |
| **Mol. weight [g/mol]:** | 124.22 |
| **CAS:** | 496-10-6 |

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| chl | -5588.60 | kJ/mol | NIST Webbook |
| gf | 110.10 | kJ/mol | Joback Method |
| hf | -101.97 | kJ/mol | Joback Method |
| hfus | 9.04 | kJ/mol | Joback Method |
| hvap | 35.97 | kJ/mol | Joback Method |
| log10ws | -2.90 | | Crippen Method |
| logp | 2.977 | | Crippen Method |
| mcvol | 115.950 | ml/mol | McGowan Method |
| pc | 3276.53 | kPa | Joback Method |
| rinpol | 977.00 | | NIST Webbook |
| rinpol | 977.00 | | NIST Webbook |
| rinpol | 940.00 | | NIST Webbook |
| rinpol | 991.00 | | NIST Webbook |
| rinpol | 999.00 | | NIST Webbook |
| tb | 437.00 ± 10.00 | K | NIST Webbook |
| tc | 647.88 | K | Joback Method |
| tf | 230.00 ± 1.66 | K | NIST Webbook |
| vc | 0.429 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 261.35 | J/mol×K | 467.66 | Joback Method |
| cpg | 240.94 | J/mol×K | 431.61 | Joback Method |
| cpg | 345.88 | J/mol×K | 647.88 | Joback Method |
| cpg | 331.12 | J/mol×K | 611.84 | Joback Method |
| cpg | 315.35 | J/mol×K | 575.79 | Joback Method |
| cpg | 298.50 | J/mol×K | 539.75 | Joback Method |
| cpg | 280.52 | J/mol×K | 503.70 | Joback Method |
| cpl | 217.10 | J/mol×K | 313.00 | NIST Webbook |
| cpl | 219.70 | J/mol×K | 311.00 | NIST Webbook |
| dvisc | 0.0004581 | Pa×s | 431.61 | Joback Method |
| dvisc | 0.0005380 | Pa×s | 395.76 | Joback Method |
| dvisc | 0.0006525 | Pa×s | 359.91 | Joback Method |
| dvisc | 0.0008258 | Pa×s | 324.06 | Joback Method |
| dvisc | 0.0011082 | Pa×s | 288.21 | Joback Method |
| dvisc | 0.0016168 | Pa×s | 252.36 | Joback Method |
| dvisc | 0.0026731 | Pa×s | 216.51 | Joback Method |

# Sources

| | |
|---|---|
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C496106&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |
| **Infinite dilution activity coefficients, specific retention volumes and solvation thermodynamics of hydrocarbons in C78H158 branched alkane solvent:** | https://www.doi.org/10.1016/j.fluid.2006.07.015 |
| **Joback Method:** | https://en.wikipedia.org/wiki/Joback_method |

# Legend

| | |
|---|---|
| **chl:** | Standard liquid enthalpy of combustion |
| **cpg:** | Ideal gas heat capacity |
| **cpl:** | Liquid phase heat capacity |
| **dvisc:** | Dynamic viscosity |

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|---|---|
| **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 |