# 1H-Indene, 1-hexadecyloctahydro-

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|---|---|
| **Other names:** | «alpha»-n-Hexadecylhydrindane |
| | 1-n-Hexadecylbicyclo(4.3.0)nonane |
| | 1-n-Hexadecylhydrindane |
| | 1-n-Hexadecyl(hydroindan) |
| | 1-Hexyldecylhexahydroindane |
| **Inchi:** | InChI=1S/C25H48/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-18-23-21-22-24-19-16-17-20-25 |
| **InchiKey:** | XYDNFNUIQWCNEV-UHFFFAOYSA-N |
| **Formula:** | C25H48 |
| **SMILES:** | CCCCCCCCCCCCCCCCC1CCC2CCCCC12 |
| **Mol. weight [g/mol]:** | 348.65 |
| **CAS:** | 55401-73-5 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 237.11 | kJ/mol | Joback Method |
| hf | -452.55 | kJ/mol | Joback Method |
| hfus | 51.55 | kJ/mol | Joback Method |
| hvap | 71.28 | kJ/mol | Joback Method |
| log10ws | -9.35 | | Crippen Method |
| logp | 9.074 | | Crippen Method |
| mcvol | 341.390 | ml/mol | McGowan Method |
| pc | 909.43 | kPa | Joback Method |
| tb | 793.02 | K | Joback Method |
| tc | 980.24 | K | Joback Method |
| tf | 392.59 | K | Joback Method |
| vc | 1.325 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1140.33 | J/mol×K | 793.02 | Joback Method |
| cpg | 1164.88 | J/mol×K | 824.22 | Joback Method |
| cpg | 1188.11 | J/mol×K | 855.43 | Joback Method |
| cpg | 1210.11 | J/mol×K | 886.63 | Joback Method |

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|---|---|---|---|---|
| cpg | 1230.92 | J/mol×K | 917.83 | Joback Method |
| cpg | 1250.62 | J/mol×K | 949.03 | Joback Method |
| cpg | 1269.27 | J/mol×K | 980.24 | Joback Method |
| dvisc | 0.0026628 | Pa×s | 392.59 | Joback Method |
| dvisc | 0.0012584 | Pa×s | 459.33 | Joback Method |
| dvisc | 0.0007193 | Pa×s | 526.07 | Joback Method |
| dvisc | 0.0004663 | Pa×s | 592.80 | Joback Method |
| dvisc | 0.0003300 | Pa×s | 659.54 | Joback Method |
| dvisc | 0.0002489 | Pa×s | 726.28 | Joback Method |
| dvisc | 0.0001968 | Pa×s | 793.02 | Joback Method |

# Sources

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|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C55401735&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 |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |

# Legend

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