# 6-DECYL-1,2,3,4-TETRAHYDRONAPHTHALENE

**Other names:** 6-Decyl-1,2,3,4-tetrahydronaphthalene
**Inchi:** InChI=1S/C20H32/c1-2-3-4-5-6-7-8-9-12-18-15-16-19-13-10-11-14-20(19)17-18/h15-17H
**InchiKey:** XUOAXFUDTUKGFD-UHFFFAOYSA-N
**Formula:** C20H32
**SMILES:** CCCCCCCCCCc1ccc2c(c1)CCCC2
**Mol. weight [g/mol]:** 272.48

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| af | 0.7683 | | Cheméo Relay (1.0) |
| hfus | 35.78 | kJ/mol | Joback Method |
| hvap | 96.48 | kJ/mol | Cheméo Relay (1.0) |
| ie | 8.50 | eV | Cheméo Relay (1.0) |
| log10ws | -7.50 | | Cheméo Relay (1.0) |
| logp | 6.249 | | Crippen Method |
| mcvol | 258.040 | ml/mol | McGowan Method |
| pc | 1425.07 | kPa | Joback Method |
| tb | 633.60 | K | Cheméo Relay (1.0) |
| tc | 828.27 | K | Cheméo Relay (1.0) |
| tf | 281.16 | K | Cheméo Relay (1.0) |
| vc | 1.002 | m3/kmol | Cheméo Relay (1.0) |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 755.27 | J/mol×K | 709.32 | Joback Method |
| cpg | 862.97 | J/mol×K | 908.92 | Joback Method |
| cpg | 847.47 | J/mol×K | 875.65 | Joback Method |
| cpg | 831.07 | J/mol×K | 842.38 | Joback Method |
| cpg | 813.72 | J/mol×K | 809.12 | Joback Method |
| cpg | 795.35 | J/mol×K | 775.85 | Joback Method |
| cpg | 775.89 | J/mol×K | 742.59 | Joback Method |
| dvisc | 0.0003765 | Pa×s | 547.30 | Joback Method |
| dvisc | 0.0001587 | Pa×s | 709.32 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0002018 | Pa×s | 655.31 | Joback Method |
| dvisc | 0.0002680 | Pa×s | 601.31 | Joback Method |
| dvisc | 0.0018467 | Pa×s | 385.28 | Joback Method |
| dvisc | 0.0005696 | Pa×s | 493.29 | Joback Method |
| dvisc | 0.0009540 | Pa×s | 439.29 | Joback Method |

# Sources

| | |
|---|---|
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |
| **Cheméo Relay (1.0):** | |
| **Cheméo Relay (1.0, beta):** | |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C66455694&Units=SI |
| **Joback Method:** | https://en.wikipedia.org/wiki/Joback_method |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# Legend

| | |
|---|---|
| **af:** | Acentric Factor |
| **cpg:** | Ideal gas heat capacity |
| **dvisc:** | Dynamic viscosity |
| **hfus:** | Enthalpy of fusion at standard conditions |
| **hvap:** | Enthalpy of vaporization at standard conditions |
| **ie:** | Ionization energy |
| **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 |