# 12-heptyltricosane

**Inchi:** InChI=1S/C30H62/c1-4-7-10-13-15-17-19-22-25-28-30(27-24-21-12-9-6-3)29-26-23-20-1
**InchiKey:** CWEMFZROPOWTNA-UHFFFAOYSA-N
**Formula:** C30H62
**SMILES:** CCCCCCCCCCCC(CCCCCCC)CCCCCCCCCCC
**Mol. weight [g/mol]:** 422.81

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 199.28 | kJ/mol | Joback Method |
| hf | -667.81 | kJ/mol | Joback Method |
| hfus | 69.93 | kJ/mol | Joback Method |
| hvap | 81.99 | kJ/mol | Joback Method |
| log10ws | -12.14 | | Crippen Method |
| logp | 11.805 | | Crippen Method |
| mcvol | 433.560 | ml/mol | McGowan Method |
| pc | 597.80 | kPa | Joback Method |
| rinpol | 2839.00 | | NIST Webbook |
| tb | 885.36 | K | Joback Method |
| tc | 1090.03 | K | Joback Method |
| tf | 412.86 | K | Joback Method |
| vc | 1.710 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1482.38 | J/mol×K | 885.36 | Joback Method |
| cpg | 1509.50 | J/mol×K | 919.47 | Joback Method |
| cpg | 1535.09 | J/mol×K | 953.58 | Joback Method |
| cpg | 1559.23 | J/mol×K | 987.69 | Joback Method |
| cpg | 1582.00 | J/mol×K | 1021.80 | Joback Method |
| cpg | 1603.48 | J/mol×K | 1055.92 | Joback Method |
| cpg | 1623.76 | J/mol×K | 1090.03 | Joback Method |
| dvisc | 0.0013422 | Pa×s | 412.86 | Joback Method |
| dvisc | 0.0003919 | Pa×s | 491.61 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0001607 | Pa×s | 570.36 | Joback Method |
| dvisc | 0.0000818 | Pa×s | 649.11 | Joback Method |
| dvisc | 0.0000482 | Pa×s | 727.86 | Joback Method |
| dvisc | 0.0000315 | Pa×s | 806.61 | Joback Method |
| dvisc | 0.0000222 | Pa×s | 885.36 | Joback Method |

# Sources

| | |
|---|---|
| **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 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=R248203&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# 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 |
| **rinpol:** | Non-polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |