# 4,5,14-trimethylheptadecane

**Inchi:** InChI=1S/C20H42/c1-6-14-18(3)16-12-10-8-9-11-13-17-20(5)19(4)15-7-2/h18-20H,6-17H
**InchiKey:** HWNXDMOQHSISDZ-UHFFFAOYSA-N
**Formula:** C20H42
**SMILES:** CCCC(C)CCCCCCCCC(C)C(C)CCC
**Mol. weight [g/mol]:** 282.55

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 110.20 | kJ/mol | Joback Method |
| hf | -471.97 | kJ/mol | Joback Method |
| hfus | 36.99 | kJ/mol | Joback Method |
| hvap | 58.95 | kJ/mol | Joback Method |
| log10ws | -7.47 | | Crippen Method |
| logp | 7.616 | | Crippen Method |
| mcvol | 292.660 | ml/mol | McGowan Method |
| pc | 1031.25 | kPa | Joback Method |
| rinpol | 1891.00 | | NIST Webbook |
| tb | 655.68 | K | Joback Method |
| tc | 821.33 | K | Joback Method |
| tf | 270.16 | K | Joback Method |
| vc | 1.137 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 841.48 | J/mol×K | 655.68 | Joback Method |
| cpg | 863.20 | J/mol×K | 683.29 | Joback Method |
| cpg | 883.99 | J/mol×K | 710.90 | Joback Method |
| cpg | 903.88 | J/mol×K | 738.51 | Joback Method |
| cpg | 922.89 | J/mol×K | 766.12 | Joback Method |
| cpg | 941.05 | J/mol×K | 793.73 | Joback Method |
| cpg | 958.39 | J/mol×K | 821.33 | Joback Method |
| dvisc | 0.0117916 | Pa×s | 270.16 | Joback Method |
| dvisc | 0.0022855 | Pa×s | 334.41 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0007518 | Pa×s | 398.67 | Joback Method |
| dvisc | 0.0003367 | Pa×s | 462.92 | Joback Method |
| dvisc | 0.0001834 | Pa×s | 527.17 | Joback Method |
| dvisc | 0.0001140 | Pa×s | 591.43 | Joback Method |
| dvisc | 0.0000778 | Pa×s | 655.68 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=R273660&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

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

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