# 13,17,25-trimethylheptatriacontane

**Inchi:** InChI=1S/C40H82/c1-6-8-10-12-14-16-18-20-23-27-32-38(3)33-29-25-22-26-30-35-40(5)36-31-28-24-21-19-17-15-13-11-9-7-2/h38,40H,6-37H2,1-5H3

**InchiKey:** QXVLDDIWVBWNFN-UHFFFAOYSA-N

**Formula:** C40H82

**SMILES:** CCCCCCCCCCCCC(C)CCCCCCCC(C)CCCC(C)CCCCCCCCCCCC

**Mol. weight [g/mol]:** 563.08

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 278.60 | kJ/mol | Joback Method |
| hf | -884.77 | kJ/mol | Joback Method |
| hfus | 88.79 | kJ/mol | Joback Method |
| hvap | 103.47 | kJ/mol | Joback Method |
| log10ws | -15.84 | | Crippen Method |
| logp | 15.418 | | Crippen Method |
| mcvol | 574.460 | ml/mol | McGowan Method |
| pc | 394.61 | kPa | Joback Method |
| rinpol | 3782.00 | | NIST Webbook |
| rinpol | 3780.00 | | NIST Webbook |
| rinpol | 3780.00 | | NIST Webbook |
| rinpol | 3780.00 | | NIST Webbook |
| tb | 1113.28 | K | Joback Method |
| tc | 1468.24 | K | Joback Method |
| tf | 495.56 | K | Joback Method |
| vc | 2.257 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 2175.93 | J/mol×K | 1113.28 | Joback Method |
| cpg | 2217.11 | J/mol×K | 1172.44 | Joback Method |
| cpg | 2254.57 | J/mol×K | 1231.60 | Joback Method |
| cpg | 2288.88 | J/mol×K | 1290.76 | Joback Method |
| cpg | 2320.61 | J/mol×K | 1349.92 | Joback Method |
| cpg | 2350.35 | J/mol×K | 1409.08 | Joback Method |

| | | | | |
|---|---|---|---|---|
| cpg | 2378.66 | J/mol×K | 1468.24 | Joback Method |
| dvisc | 0.0004037 | Pa×s | 495.56 | Joback Method |
| dvisc | 0.0000943 | Pa×s | 598.51 | Joback Method |
| dvisc | 0.0000337 | Pa×s | 701.47 | Joback Method |
| dvisc | 0.0000157 | Pa×s | 804.42 | Joback Method |
| dvisc | 0.0000087 | Pa×s | 907.37 | Joback Method |
| dvisc | 0.0000054 | Pa×s | 1010.33 | Joback Method |
| dvisc | 0.0000037 | Pa×s | 1113.28 | Joback Method |

# Sources

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772
**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=R272023&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

# 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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