# Heneicosane, 3-methyl-

**Other names:** 3-Methylheneicosane
3-Methylhenicosane
**Inchi:** InChI=1S/C22H46/c1-4-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22(3)5-2/h22H,4-
**InchiKey:** OSJUENOXPFOHLF-UHFFFAOYSA-N
**Formula:** C22H46
**SMILES:** CCCCCCCCCCCCCCCCCCC(C)CC
**Mol. weight [g/mol]:** 310.60
**CAS:** 6418-47-9

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 131.92 | kJ/mol | Joback Method |
| hf | -502.69 | kJ/mol | Joback Method |
| hfus | 49.21 | kJ/mol | Joback Method |
| hvap | 64.18 | kJ/mol | Joback Method |
| log10ws | -8.79 | | Crippen Method |
| logp | 8.684 | | Crippen Method |
| mcvol | 320.840 | ml/mol | McGowan Method |
| pc | 906.15 | kPa | Joback Method |
| rinpol | 2174.00 | | NIST Webbook |
| rinpol | 2174.00 | | NIST Webbook |
| rinpol | 2174.00 | | NIST Webbook |
| rinpol | 2174.30 | | NIST Webbook |
| rinpol | 2174.00 | | NIST Webbook |
| rinpol | 2169.00 | | NIST Webbook |
| rinpol | 2168.50 | | NIST Webbook |
| rinpol | 2171.30 | | NIST Webbook |
| rinpol | 2171.00 | | NIST Webbook |
| rinpol | 2172.00 | | NIST Webbook |
| rinpol | 2174.00 | | NIST Webbook |
| rinpol | 2173.00 | | NIST Webbook |
| rinpol | 2172.00 | | NIST Webbook |
| rinpol | 2174.00 | | NIST Webbook |
| ripol | 2169.30 | | NIST Webbook |
| tb | 702.32 | K | Joback Method |
| tc | 867.26 | K | Joback Method |
| tf | 292.80 ± 2.00 | K | NIST Webbook |

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|---|---|---|---|
| vc | 1.262 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 962.39 | J/mol×K | 702.32 | Joback Method |
| cpg | 984.38 | J/mol×K | 729.81 | Joback Method |
| cpg | 1005.42 | J/mol×K | 757.30 | Joback Method |
| cpg | 1025.55 | J/mol×K | 784.79 | Joback Method |
| cpg | 1044.78 | J/mol×K | 812.28 | Joback Method |
| cpg | 1063.16 | J/mol×K | 839.77 | Joback Method |
| cpg | 1080.72 | J/mol×K | 867.26 | Joback Method |
| dvisc | 0.0040182 | Pa×s | 322.70 | Joback Method |
| dvisc | 0.0011754 | Pa×s | 385.97 | Joback Method |
| dvisc | 0.0004861 | Pa×s | 449.24 | Joback Method |
| dvisc | 0.0002500 | Pa×s | 512.51 | Joback Method |
| dvisc | 0.0001488 | Pa×s | 575.78 | Joback Method |
| dvisc | 0.0000982 | Pa×s | 639.05 | Joback Method |
| dvisc | 0.0000698 | Pa×s | 702.32 | Joback Method |
| hvapt | 74.40 | kJ/mol | 557.50 | NIST Webbook |

# Sources

**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=C6418479&Units=SI
**Crippen Method:** http://pubs.acs.org/doi/abs/10.1021/ci990307l
**Crippen Method:** https://www.chemeo.com/doc/models/crippen_log10ws

# 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

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|---|---|
| **hvap:** | Enthalpy of vaporization at standard conditions |
| **hvapt:** | Enthalpy of vaporization at a given temperature |
| **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 |
| **ripol:** | Polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |