# 6-hexadecenal, E

**Other names:** (E)-6-Hexadecenal
**Inchi:** InChI=1S/C16H30O/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17/h10-11,16H,2-9,12-15H
**InchiKey:** IGGMOQLBTZJSGX-ZHACJKMWSA-N
**Formula:** C16H30O
**SMILES:** CCCCCCCCCC=CCCCCC=O
**Mol. weight [g/mol]:** 238.41

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 64.54 | kJ/mol | Joback Method |
| hf | -341.93 | kJ/mol | Joback Method |
| hfus | 39.69 | kJ/mol | Joback Method |
| hvap | 57.89 | kJ/mol | Joback Method |
| log10ws | -5.65 | | Crippen Method |
| logp | 5.443 | | Crippen Method |
| mcvol | 233.570 | ml/mol | McGowan Method |
| pc | 1447.94 | kPa | Joback Method |
| rinpol | 1803.00 | | NIST Webbook |
| rinpol | 1803.00 | | NIST Webbook |
| ripol | 2146.00 | | NIST Webbook |
| ripol | 2146.00 | | NIST Webbook |
| tb | 618.30 | K | Joback Method |
| tc | 787.48 | K | Joback Method |
| tf | 307.00 | K | Joback Method |
| vc | 0.928 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 624.39 | J/mol×K | 618.30 | Joback Method |
| cpg | 641.87 | J/mol×K | 646.50 | Joback Method |
| cpg | 658.57 | J/mol×K | 674.69 | Joback Method |
| cpg | 674.53 | J/mol×K | 702.89 | Joback Method |
| cpg | 689.77 | J/mol×K | 731.09 | Joback Method |

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|---|---|---|---|---|
| cpg | 704.32 | J/mol×K | 759.29 | Joback Method |
| cpg | 718.22 | J/mol×K | 787.48 | Joback Method |
| dvisc | 0.0038359 | Pa×s | 307.00 | Joback Method |
| dvisc | 0.0015057 | Pa×s | 358.88 | Joback Method |
| dvisc | 0.0007485 | Pa×s | 410.77 | Joback Method |
| dvisc | 0.0004352 | Pa×s | 462.65 | Joback Method |
| dvisc | 0.0002823 | Pa×s | 514.53 | Joback Method |
| dvisc | 0.0001983 | Pa×s | 566.42 | Joback Method |
| dvisc | 0.0001477 | Pa×s | 618.30 | Joback Method |

# Sources

| | |
|---|---|
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=R265377&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 |
| **ripol:** | Polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |

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