# (E)-2-pentadecenal

**Inchi:** InChI=1S/C15H28O/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16/h13-15H,2-12H2,1H3/b14-
**InchiKey:** MLTULPRRIKTZBN-BUHFOSPRSA-N
**Formula:** C15H28O
**SMILES:** CCCCCCCCCCCCCC=CC=O
**Mol. weight [g/mol]:** 224.38

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 56.12 | kJ/mol | Joback Method |
| hf | -321.29 | kJ/mol | Joback Method |
| hfus | 37.10 | kJ/mol | Joback Method |
| hvap | 55.66 | kJ/mol | Joback Method |
| log10ws | -5.24 | | Crippen Method |
| logp | 5.053 | | Crippen Method |
| mcvol | 219.480 | ml/mol | McGowan Method |
| pc | 1559.81 | kPa | Joback Method |
| rinpol | 1751.00 | | NIST Webbook |
| rinpol | 1750.00 | | NIST Webbook |
| tb | 595.42 | K | Joback Method |
| tc | 765.25 | K | Joback Method |
| tf | 295.73 | K | Joback Method |
| vc | 0.873 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 570.74 | J/mol×K | 595.42 | Joback Method |
| cpg | 587.75 | J/mol×K | 623.72 | Joback Method |
| cpg | 604.00 | J/mol×K | 652.03 | Joback Method |
| cpg | 619.53 | J/mol×K | 680.33 | Joback Method |
| cpg | 634.36 | J/mol×K | 708.64 | Joback Method |
| cpg | 648.52 | J/mol×K | 736.94 | Joback Method |
| cpg | 662.05 | J/mol×K | 765.25 | Joback Method |
| dvisc | 0.0040996 | Pa×s | 295.73 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0016268 | Pa×s | 345.68 | Joback Method |
| dvisc | 0.0008152 | Pa×s | 395.63 | Joback Method |
| dvisc | 0.0004770 | Pa×s | 445.58 | Joback Method |
| dvisc | 0.0003109 | Pa×s | 495.52 | Joback Method |
| dvisc | 0.0002192 | Pa×s | 545.47 | Joback Method |
| dvisc | 0.0001639 | Pa×s | 595.42 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=R222345&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 |