# (Z,E)-2,4-heptadien-1-al

**Other names:** (Z,E)-2,4-heptadienal
**Inchi:** InChI=1S/C7H10O/c1-2-3-4-5-6-7-8/h3-7H,2H2,1H3/b4-3+,6-5-
**InchiKey:** SATICYYAWWYRAM-ICWBMWKASA-N
**Formula:** C7H10O
**SMILES:** CCC=CC=CC=O
**Mol. weight [g/mol]:** 110.15

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 68.98 | kJ/mol | Joback Method |
| hf | -38.95 | kJ/mol | Joback Method |
| hfus | 16.58 | kJ/mol | Joback Method |
| hvap | 37.81 | kJ/mol | Joback Method |
| log10ws | -1.74 | | Crippen Method |
| logp | 1.708 | | Crippen Method |
| mcvol | 102.460 | ml/mol | McGowan Method |
| pc | 3411.87 | kPa | Joback Method |
| rinpol | 974.00 | | NIST Webbook |
| rinpol | 974.00 | | NIST Webbook |
| rinpol | 975.00 | | NIST Webbook |
| rinpol | 975.00 | | NIST Webbook |
| tb | 416.54 | K | Joback Method |
| tc | 606.14 | K | Joback Method |
| tf | 200.49 | K | Joback Method |
| vc | 0.405 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 186.30 | J/mol×K | 416.54 | Joback Method |
| cpg | 232.55 | J/mol×K | 574.54 | Joback Method |
| cpg | 224.36 | J/mol×K | 542.94 | Joback Method |
| cpg | 215.67 | J/mol×K | 511.34 | Joback Method |
| cpg | 206.45 | J/mol×K | 479.74 | Joback Method |

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|---|---|---|---|---|
| cpg | 196.67 | J/mol×K | 448.14 | Joback Method |
| cpg | 240.28 | J/mol×K | 606.14 | Joback Method |
| dvisc | 0.0002197 | Pa×s | 416.54 | Joback Method |
| dvisc | 0.0002831 | Pa×s | 380.53 | Joback Method |
| dvisc | 0.0003844 | Pa×s | 344.52 | Joback Method |
| dvisc | 0.0005608 | Pa×s | 308.51 | Joback Method |
| dvisc | 0.0009040 | Pa×s | 272.51 | Joback Method |
| dvisc | 0.0016852 | Pa×s | 236.50 | Joback Method |
| dvisc | 0.0039290 | Pa×s | 200.49 | Joback Method |

# Sources

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|---|---|
| **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=R210783&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |

# Legend

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