# (Z)-3-octenal

**Inchi:** InChI=1S/C8H14O/c1-2-3-4-5-6-7-8-9/h5-6,8H,2-4,7H2,1H3/b6-5-
**InchiKey:** WDWAUVJQFVTKEW-WAYWQWQTSA-N
**Formula:** C8H14O
**SMILES:** CCCCC=CCC=O
**Mol. weight [g/mol]:** 126.20

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -2.82 | kJ/mol | Joback Method |
| hf | -176.81 | kJ/mol | Joback Method |
| hfus | 18.97 | kJ/mol | Joback Method |
| hvap | 40.08 | kJ/mol | Joback Method |
| log10ws | -2.30 | | Crippen Method |
| logp | 2.322 | | Crippen Method |
| mcvol | 120.850 | ml/mol | McGowan Method |
| pc | 2890.51 | kPa | Joback Method |
| ripol | 1421.00 | | NIST Webbook |
| ripol | 1397.00 | | NIST Webbook |
| ripol | 1397.00 | | NIST Webbook |
| ripol | 1421.00 | | NIST Webbook |
| tb | 435.26 | K | Joback Method |
| tc | 614.34 | K | Joback Method |
| tf | 216.84 | K | Joback Method |
| vc | 0.480 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 241.07 | J/mol×K | 435.26 | Joback Method |
| cpg | 252.93 | J/mol×K | 465.11 | Joback Method |
| cpg | 264.25 | J/mol×K | 494.95 | Joback Method |
| cpg | 275.03 | J/mol×K | 524.80 | Joback Method |
| cpg | 285.31 | J/mol×K | 554.65 | Joback Method |
| cpg | 295.10 | J/mol×K | 584.49 | Joback Method |

| | | | | |
|---|---|---|---|---|
| cpg | 304.43 | J/mol×K | 614.34 | Joback Method |
| dvisc | 0.0045537 | Pa×s | 216.84 | Joback Method |
| dvisc | 0.0020114 | Pa×s | 253.24 | Joback Method |
| dvisc | 0.0010910 | Pa×s | 289.65 | Joback Method |
| dvisc | 0.0006784 | Pa×s | 326.05 | Joback Method |
| dvisc | 0.0004641 | Pa×s | 362.45 | Joback Method |
| dvisc | 0.0003402 | Pa×s | 398.86 | Joback Method |
| dvisc | 0.0002628 | Pa×s | 435.26 | Joback Method |

# 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=R298629&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 |
| **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 |
| **ripol:** | Polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |

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