# Hentriacontane-8,10-dione

**Inchi:** InChI=1S/C31H60O2/c1-3-5-7-9-10-11-12-13-14-15-16-17-18-19-20-21-22-24-26-28-31(
**InchiKey:** AFUNKBMLTPDWPX-UHFFFAOYSA-N
**Formula:** C31H60O2
**SMILES:** CCCCCCCCCCCCCCCCCCCCCC(=O)CC(=O)CCCCCCC
**Mol. weight [g/mol]:** 464.81
**CAS:** 50837-34-8

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -47.70 | kJ/mol | Joback Method |
| hf | -908.33 | kJ/mol | Joback Method |
| hfus | 79.24 | kJ/mol | Joback Method |
| hvap | 98.09 | kJ/mol | Joback Method |
| log10ws | -11.36 | | Crippen Method |
| logp | 10.697 | | Crippen Method |
| mcvol | 450.790 | ml/mol | McGowan Method |
| pc | 604.28 | kPa | Joback Method |
| rinpol | 3381.00 | | NIST Webbook |
| rinpol | 3381.00 | | NIST Webbook |
| tb | 1016.42 | K | Joback Method |
| tc | 1271.51 | K | Joback Method |
| tf | 538.99 | K | Joback Method |
| vc | 1.784 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1607.38 | J/mol×K | 1016.42 | Joback Method |
| cpg | 1633.62 | J/mol×K | 1058.93 | Joback Method |
| cpg | 1657.89 | J/mol×K | 1101.45 | Joback Method |
| cpg | 1680.34 | J/mol×K | 1143.96 | Joback Method |
| cpg | 1701.12 | J/mol×K | 1186.48 | Joback Method |
| cpg | 1720.40 | J/mol×K | 1228.99 | Joback Method |
| cpg | 1738.33 | J/mol×K | 1271.51 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0004684 | Pa×s | 538.99 | Joback Method |
| dvisc | 0.0001927 | Pa×s | 618.56 | Joback Method |
| dvisc | 0.0000970 | Pa×s | 698.13 | Joback Method |
| dvisc | 0.0000562 | Pa×s | 777.70 | Joback Method |
| dvisc | 0.0000361 | Pa×s | 857.28 | Joback Method |
| dvisc | 0.0000249 | Pa×s | 936.85 | Joback Method |
| dvisc | 0.0000183 | Pa×s | 1016.42 | 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=C50837348&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 |