# Nonacosan-10-one

**Inchi:** InChI=1S/C29H58O/c1-3-5-7-9-11-12-13-14-15-16-17-18-19-20-22-24-26-28-29(30)27-2
**InchiKey:** ZPVRGRJHOPAZOE-UHFFFAOYSA-N
**Formula:** C29H58O
**SMILES:** CCCCCCCCCCCCCCCCCCCC(=O)CCCCCCCCC
**Mol. weight [g/mol]:** 422.77
**CAS:** 504-56-3

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 64.38 | kJ/mol | Joback Method |
| hf | -754.47 | kJ/mol | Joback Method |
| hfus | 72.47 | kJ/mol | Joback Method |
| hvap | 86.89 | kJ/mol | Joback Method |
| log10ws | -11.24 | | Crippen Method |
| logp | 10.738 | | Crippen Method |
| mcvol | 421.040 | ml/mol | McGowan Method |
| pc | 644.51 | kPa | Joback Method |
| rinpol | 3089.90 | | NIST Webbook |
| rinpol | 3089.90 | | NIST Webbook |
| tb | 916.79 | K | Joback Method |
| tc | 1130.21 | K | Joback Method |
| tf | 466.52 | K | Joback Method |
| vc | 1.665 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1447.56 | J/mol×K | 916.79 | Joback Method |
| cpg | 1559.86 | J/mol×K | 1094.64 | Joback Method |
| cpg | 1540.12 | J/mol×K | 1059.07 | Joback Method |
| cpg | 1519.11 | J/mol×K | 1023.50 | Joback Method |
| cpg | 1496.74 | J/mol×K | 987.93 | Joback Method |
| cpg | 1472.92 | J/mol×K | 952.36 | Joback Method |
| cpg | 1578.41 | J/mol×K | 1130.21 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0000267 | Pa×s | 916.79 | Joback Method |
| dvisc | 0.0000367 | Pa×s | 841.75 | Joback Method |
| dvisc | 0.0000538 | Pa×s | 766.70 | Joback Method |
| dvisc | 0.0000857 | Pa×s | 691.65 | Joback Method |
| dvisc | 0.0001529 | Pa×s | 616.61 | Joback Method |
| dvisc | 0.0003200 | Pa×s | 541.56 | Joback Method |
| dvisc | 0.0008496 | Pa×s | 466.52 | Joback Method |

# Sources

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|---|---|
| **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 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C504563&Units=SI |

# 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 |