# Nonanoic acid, decyl ester

**Inchi:** InChI=1S/C19H38O2/c1-3-5-7-9-11-12-14-16-18-21-19(20)17-15-13-10-8-6-4-2/h3-18H2
**InchiKey:** KEGIMMCZWZCLGJ-UHFFFAOYSA-N
**Formula:** C19H38O2
**SMILES:** CCCCCCCCCCOC(=O)CCCCCCCC
**Mol. weight [g/mol]:** 298.50

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -124.82 | kJ/mol | Joback Method |
| hf | -680.29 | kJ/mol | Joback Method |
| hfus | 47.75 | kJ/mol | Joback Method |
| hvap | 67.04 | kJ/mol | Joback Method |
| log10ws | -6.64 | | Crippen Method |
| logp | 6.421 | | Crippen Method |
| mcvol | 286.010 | ml/mol | McGowan Method |
| pc | 1114.08 | kPa | Joback Method |
| rinpol | 2074.00 | | NIST Webbook |
| rinpol | 2074.00 | | NIST Webbook |
| tb | 710.41 | K | Joback Method |
| tc | 879.90 | K | Joback Method |
| tf | 376.05 | K | Joback Method |
| vc | 1.123 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 848.69 | J/mol×K | 710.41 | Joback Method |
| cpg | 867.91 | J/mol×K | 738.66 | Joback Method |
| cpg | 886.25 | J/mol×K | 766.91 | Joback Method |
| cpg | 903.75 | J/mol×K | 795.15 | Joback Method |
| cpg | 920.41 | J/mol×K | 823.40 | Joback Method |
| cpg | 936.27 | J/mol×K | 851.65 | Joback Method |
| cpg | 951.34 | J/mol×K | 879.90 | Joback Method |
| dvisc | 0.0018384 | Pa×s | 376.05 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0007881 | Pa×s | 431.78 | Joback Method |
| dvisc | 0.0004101 | Pa×s | 487.50 | Joback Method |
| dvisc | 0.0002440 | Pa×s | 543.23 | Joback Method |
| dvisc | 0.0001599 | Pa×s | 598.96 | Joback Method |
| dvisc | 0.0001126 | Pa×s | 654.68 | Joback Method |
| dvisc | 0.0000838 | Pa×s | 710.41 | 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=U340277&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 |