# cis-10-Nonadecenoic acid

**Inchi:** InChI=1S/C19H36O2/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19(20)21/h9-10H,2
**InchiKey:** BBOWBNGUEWHNQZ-KTKRTIGZSA-N
**Formula:** C19H36O2
**SMILES:** CCCCCCCCC=CCCCCCCCCC(=O)O
**Mol. weight [g/mol]:** 296.49
**CAS:** 73033-09-7

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -76.42 | kJ/mol | Joback Method |
| hf | -583.08 | kJ/mol | Joback Method |
| hfus | 50.85 | kJ/mol | Joback Method |
| hvap | 81.27 | kJ/mol | Joback Method |
| log10ws | -6.73 | | Crippen Method |
| logp | 6.499 | | Crippen Method |
| mcvol | 281.710 | ml/mol | McGowan Method |
| pc | 1244.21 | kPa | Joback Method |
| rinpol | 2256.00 | | NIST Webbook |
| rinpol | 2256.00 | | NIST Webbook |
| tb | 784.33 | K | Joback Method |
| tc | 962.84 | K | Joback Method |
| tf | 409.56 | K | Joback Method |
| vc | 1.105 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 870.16 | J/mol×K | 784.33 | Joback Method |
| cpg | 887.19 | J/mol×K | 814.08 | Joback Method |
| cpg | 903.39 | J/mol×K | 843.83 | Joback Method |
| cpg | 918.82 | J/mol×K | 873.59 | Joback Method |
| cpg | 933.51 | J/mol×K | 903.34 | Joback Method |
| cpg | 947.51 | J/mol×K | 933.09 | Joback Method |
| cpg | 960.85 | J/mol×K | 962.84 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0019556 | Pa×s | 409.56 | Joback Method |
| dvisc | 0.0005299 | Pa×s | 472.02 | Joback Method |
| dvisc | 0.0001948 | Pa×s | 534.48 | Joback Method |
| dvisc | 0.0000883 | Pa×s | 596.94 | Joback Method |
| dvisc | 0.0000465 | Pa×s | 659.41 | Joback Method |
| dvisc | 0.0000274 | Pa×s | 721.87 | Joback Method |
| dvisc | 0.0000175 | Pa×s | 784.33 | 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=C73033097&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 |
| **rinpol:** | Non-polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |