# trans-Acenaphthen-1,2-diol, diacetate

**Inchi:** InChI=1S/C16H14O4/c1-9(17)19-15-12-7-3-5-11-6-4-8-13(14(11)12)16(15)20-10(2)18/h3
**InchiKey:** AFKBNGVZYDAUNA-HZPDHXFCSA-N
**Formula:** C16H14O4
**SMILES:** CC(=O)OC1c2cccc3cccc(c23)C1OC(C)=O
**Mol. weight [g/mol]:** 270.28

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -119.06 | kJ/mol | Joback Method |
| hf | -399.89 | kJ/mol | Joback Method |
| hfus | 34.36 | kJ/mol | Joback Method |
| hvap | 74.19 | kJ/mol | Joback Method |
| log10ws | -4.26 | | Crippen Method |
| logp | 3.062 | | Crippen Method |
| mcvol | 197.100 | ml/mol | McGowan Method |
| pc | 2393.53 | kPa | Joback Method |
| rinpol | 1975.00 | | NIST Webbook |
| rinpol | 1975.00 | | NIST Webbook |
| tb | 771.48 | K | Joback Method |
| tc | 1000.55 | K | Joback Method |
| tf | 515.78 | K | Joback Method |
| vc | 0.757 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 561.65 | J/mol×K | 771.48 | Joback Method |
| cpg | 575.03 | J/mol×K | 809.66 | Joback Method |
| cpg | 587.47 | J/mol×K | 847.84 | Joback Method |
| cpg | 599.04 | J/mol×K | 886.02 | Joback Method |
| cpg | 609.80 | J/mol×K | 924.20 | Joback Method |
| cpg | 619.82 | J/mol×K | 962.37 | Joback Method |
| cpg | 629.18 | J/mol×K | 1000.55 | Joback Method |
| dvisc | 0.0019723 | Pa×s | 515.78 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0016490 | Pa×s | 558.40 | Joback Method |
| dvisc | 0.0014141 | Pa×s | 601.01 | Joback Method |
| dvisc | 0.0012376 | Pa×s | 643.63 | Joback Method |
| dvisc | 0.0011012 | Pa×s | 686.25 | Joback Method |
| dvisc | 0.0009934 | Pa×s | 728.86 | Joback Method |
| dvisc | 0.0009063 | Pa×s | 771.48 | 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=R109678&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 |