# 2,3-Di-O-acetyl-1,4-anhydro-5-O-methyl-D-xylitol

**Other names:** 2,3-O-diAcetyl-1,4-Anhydro-5-O-methyl-D-xylitol
**Inchi:** InChI=1S/C10H16O6/c1-6(11)15-9-5-14-8(4-13-3)10(9)16-7(2)12/h8-10H,4-5H2,1-3H3
**InchiKey:** WFFMYHYMXYTKNE-UHFFFAOYSA-N
**Formula:** C10H16O6
**SMILES:** COCC1OCC(OC(C)=O)C1OC(C)=O
**Mol. weight [g/mol]:** 232.23

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -604.51 | kJ/mol | Joback Method |
| hf | -983.75 | kJ/mol | Joback Method |
| hfus | 32.47 | kJ/mol | Joback Method |
| hvap | 62.72 | kJ/mol | Joback Method |
| log10ws | -0.14 | | Crippen Method |
| logp | -0.105 | | Crippen Method |
| mcvol | 167.520 | ml/mol | McGowan Method |
| pc | 2505.01 | kPa | Joback Method |
| rinpol | 1476.30 | | NIST Webbook |
| tb | 636.09 | K | Joback Method |
| tc | 837.04 | K | Joback Method |
| tf | 398.00 | K | Joback Method |
| vc | 0.622 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 464.89 | J/mol×K | 636.09 | Joback Method |
| cpg | 480.18 | J/mol×K | 669.58 | Joback Method |
| cpg | 494.68 | J/mol×K | 703.07 | Joback Method |
| cpg | 508.36 | J/mol×K | 736.57 | Joback Method |
| cpg | 521.20 | J/mol×K | 770.06 | Joback Method |
| cpg | 533.18 | J/mol×K | 803.55 | Joback Method |
| cpg | 544.28 | J/mol×K | 837.04 | Joback Method |
| dvisc | 0.0014137 | Pa×s | 398.00 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0009483 | Pa×s | 437.68 | Joback Method |
| dvisc | 0.0006797 | Pa×s | 477.36 | Joback Method |
| dvisc | 0.0005128 | Pa×s | 517.05 | Joback Method |
| dvisc | 0.0004027 | Pa×s | 556.73 | Joback Method |
| dvisc | 0.0003266 | Pa×s | 596.41 | Joback Method |
| dvisc | 0.0002719 | Pa×s | 636.09 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U366026&Units=SI |
| **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 |

# 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 |