# Glucose, 3-ethyl, acetylated

**Inchi:** InChI=1S/C16H24O10/c1-6-21-14-13(23-9(3)18)12(7-22-8(2)17)26-16(25-11(5)20)15(14
**InchiKey:** IULOSCRGGCMAPG-QMHWVQJVSA-N
**Formula:** C16H24O10
**SMILES:** CCOC1C(OC(C)=O)C(COC(C)=O)OC(OC(C)=O)C1OC(C)=O
**Mol. weight [g/mol]:** 376.36

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -1049.35 | kJ/mol | Joback Method |
| hf | -1644.03 | kJ/mol | Joback Method |
| hfus | 53.63 | kJ/mol | Joback Method |
| hvap | 93.95 | kJ/mol | Joback Method |
| log10ws | -1.09 | | Crippen Method |
| logp | 0.106 | | Crippen Method |
| mcvol | 266.940 | ml/mol | McGowan Method |
| pc | 1570.96 | kPa | Joback Method |
| rinpol | 2212.00 | | NIST Webbook |
| tb | 920.88 | K | Joback Method |
| tc | 1133.72 | K | Joback Method |
| tf | 597.94 | K | Joback Method |
| vc | 0.996 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 899.52 | J/mol×K | 920.88 | Joback Method |
| cpg | 911.94 | J/mol×K | 956.35 | Joback Method |
| cpg | 922.45 | J/mol×K | 991.83 | Joback Method |
| cpg | 930.98 | J/mol×K | 1027.30 | Joback Method |
| cpg | 937.47 | J/mol×K | 1062.77 | Joback Method |
| cpg | 941.86 | J/mol×K | 1098.25 | Joback Method |
| cpg | 944.08 | J/mol×K | 1133.72 | Joback Method |
| dvisc | 0.0004734 | Pa×s | 597.94 | Joback Method |
| dvisc | 0.0003228 | Pa×s | 651.76 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0002333 | Pa×s | 705.59 | Joback Method |
| dvisc | 0.0001766 | Pa×s | 759.41 | Joback Method |
| dvisc | 0.0001387 | Pa×s | 813.23 | Joback Method |
| dvisc | 0.0001123 | Pa×s | 867.06 | Joback Method |
| dvisc | 0.0000931 | Pa×s | 920.88 | Joback Method |

# Sources

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|---|---|
| **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=R530260&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 |