# 2-(2-(2-(2-nonyloxy-ethoxy)-ethoxy)-ethoxy)-ethan
# acetate

**Other names:** Tetraethylene glycol, nonyl ether, acetate
**Inchi:** InChI=1S/C19H38O6/c1-3-4-5-6-7-8-9-10-21-11-12-22-13-14-23-15-16-24-17-18-25-19(2
**InchiKey:** BBYAXBHCQUSZQP-UHFFFAOYSA-N
**Formula:** C19H38O6
**SMILES:** CCCCCCCCCOCCOCCOCCOCCOC(C)=O
**Mol. weight [g/mol]:** 362.50

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -544.82 | kJ/mol | Joback Method |
| hf | -1209.17 | kJ/mol | Joback Method |
| hfus | 52.50 | kJ/mol | Joback Method |
| hvap | 76.68 | kJ/mol | Joback Method |
| log10ws | -2.99 | | Crippen Method |
| logp | 3.366 | | Crippen Method |
| mcvol | 309.490 | ml/mol | McGowan Method |
| pc | 1065.18 | kPa | Joback Method |
| rinpol | 2474.20 | | NIST Webbook |
| rinpol | 2474.20 | | NIST Webbook |
| tb | 800.09 | K | Joback Method |
| tc | 980.61 | K | Joback Method |
| tf | 464.97 | K | Joback Method |
| vc | 1.196 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 978.41 | J/mol×K | 800.09 | Joback Method |
| cpg | 1060.31 | J/mol×K | 950.52 | Joback Method |
| cpg | 1046.17 | J/mol×K | 920.44 | Joback Method |
| cpg | 1030.90 | J/mol×K | 890.35 | Joback Method |
| cpg | 1014.51 | J/mol×K | 860.26 | Joback Method |
| cpg | 997.01 | J/mol×K | 830.18 | Joback Method |
| cpg | 1073.31 | J/mol×K | 980.61 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0000271 | Pa×s | 800.09 | Joback Method |
| dvisc | 0.0000358 | Pa×s | 744.24 | Joback Method |
| dvisc | 0.0000493 | Pa×s | 688.38 | Joback Method |
| dvisc | 0.0000721 | Pa×s | 632.53 | Joback Method |
| dvisc | 0.0001134 | Pa×s | 576.68 | Joback Method |
| dvisc | 0.0001965 | Pa×s | 520.82 | Joback Method |
| dvisc | 0.0003885 | Pa×s | 464.97 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=R184253&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 |