# 2-[2-[2-[2-[2-[2-[2-[2-[2-(2-Methoxyethoxy)ethoxy]e
# acetate

**Other names:** Decaethylene glycol monomethyl ether, acetate
3,6,9,12,15,18,21,24,27,30-Decaoxahentriacont-1-yl acetate

**Inchi:** InChI=1S/C23H46O12/c1-23(24)35-22-21-34-20-19-33-18-17-32-16-15-31-14-13-30-12-

**InchiKey:** VOVGSEQOJICDSM-UHFFFAOYSA-N

**Formula:** C23H46O12

**SMILES:** COCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOC(C)=O

**Mol. weight [g/mol]:** 514.60

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -1141.14 | kJ/mol | Joback Method |
| hf | -2085.05 | kJ/mol | Joback Method |
| hfus | 69.99 | kJ/mol | Joback Method |
| hvap | 100.05 | kJ/mol | Joback Method |
| log10ws | 0.81 | | Crippen Method |
| logp | 0.345 | | Crippen Method |
| mcvol | 401.070 | ml/mol | McGowan Method |
| pc | 793.49 | kPa | Joback Method |
| rinpol | 3288.20 | | NIST Webbook |
| rinpol | 3288.20 | | NIST Webbook |
| tb | 1026.13 | K | Joback Method |
| tc | 1290.17 | K | Joback Method |
| tf | 643.43 | K | Joback Method |
| vc | 1.528 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1409.28 | J/mol×K | 1026.13 | Joback Method |
| cpg | 1424.24 | J/mol×K | 1070.14 | Joback Method |
| cpg | 1434.90 | J/mol×K | 1114.14 | Joback Method |
| cpg | 1441.09 | J/mol×K | 1158.15 | Joback Method |
| cpg | 1442.62 | J/mol×K | 1202.16 | Joback Method |
| cpg | 1439.33 | J/mol×K | 1246.16 | Joback Method |

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|---|---|---|---|---|
| cpg | 1431.02 | J/mol×K | 1290.17 | Joback Method |
| dvisc | 0.0000236 | Pa×s | 643.43 | Joback Method |
| dvisc | 0.0000133 | Pa×s | 707.21 | Joback Method |
| dvisc | 0.0000083 | Pa×s | 771.00 | Joback Method |
| dvisc | 0.0000055 | Pa×s | 834.78 | Joback Method |
| dvisc | 0.0000039 | Pa×s | 898.56 | Joback Method |
| dvisc | 0.0000029 | Pa×s | 962.35 | Joback Method |
| dvisc | 0.0000022 | Pa×s | 1026.13 | Joback Method |

# Sources

| | |
|---|---|
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U351898&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 |

# 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 |

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