# Ethylene glycol bis(3-aminopropyl) ether

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|---|---|
| **Other names:** | 1-Propanamine, 3,3'-[1,2-ethanediylbis(oxy)]bis- |
| | 3,3'-(Ethylenedioxy)bispropylamine |
| | Propylamine, 3,3'-(ethylenedioxy)bis- |
| | Di(3-aminopropoxy)ethane |
| **Inchi:** | InChI=1S/C8H20N2O2/c9-3-1-5-11-7-8-12-6-2-4-10/h1-10H2 |
| **InchiKey:** | POTQBGGWSWSMCX-UHFFFAOYSA-N |
| **Formula:** | C8H20N2O2 |
| **SMILES:** | NCCCOCCOCCCN |
| **Mol. weight [g/mol]:** | 176.26 |
| **CAS:** | 2997-01-5 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -60.62 | kJ/mol | Joback Method |
| hf | -405.31 | kJ/mol | Joback Method |
| hfus | 29.25 | kJ/mol | Joback Method |
| hvap | 59.50 | kJ/mol | Joback Method |
| log10ws | -0.21 | | Crippen Method |
| logp | -0.283 | | Crippen Method |
| mcvol | 155.280 | ml/mol | McGowan Method |
| pc | 2752.67 | kPa | Joback Method |
| tb | 572.34 | K | Joback Method |
| tc | 758.31 | K | Joback Method |
| tf | 390.90 | K | Joback Method |
| vc | 0.578 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 404.11 | J/mol×K | 572.34 | Joback Method |
| cpg | 417.53 | J/mol×K | 603.34 | Joback Method |
| cpg | 430.40 | J/mol×K | 634.33 | Joback Method |
| cpg | 442.72 | J/mol×K | 665.33 | Joback Method |
| cpg | 454.50 | J/mol×K | 696.32 | Joback Method |

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|---|---|---|---|---|
| cpg | 465.74 | J/mol×K | 727.32 | Joback Method |
| cpg | 476.43 | J/mol×K | 758.31 | Joback Method |

# Sources

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|---|---|
| **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 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C2997015&Units=SI |

# Legend

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|---|---|
| **cpg:** | Ideal gas heat capacity |
| **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 |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |