# Phthalic acid, ethyl 2-phenoxyethyl ester

**Inchi:** InChI=1S/C18H18O5/c1-2-21-17(19)15-10-6-7-11-16(15)18(20)23-13-12-22-14-8-4-3-5-9
**InchiKey:** GXXXPIOHYCMQNG-UHFFFAOYSA-N
**Formula:** C18H18O5
**SMILES:** CCOC(=O)c1ccccc1C(=O)OCCOc1ccccc1
**Mol. weight [g/mol]:** 314.33

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -256.97 | kJ/mol | Joback Method |
| hf | -575.08 | kJ/mol | Joback Method |
| hfus | 36.83 | kJ/mol | Joback Method |
| hvap | 81.60 | kJ/mol | Joback Method |
| log10ws | -4.14 | | Crippen Method |
| logp | 3.099 | | Crippen Method |
| mcvol | 237.710 | ml/mol | McGowan Method |
| pc | 2021.76 | kPa | Joback Method |
| rinpol | 2786.00 | | NIST Webbook |
| rinpol | 2786.00 | | NIST Webbook |
| tb | 844.58 | K | Joback Method |
| tc | 1071.29 | K | Joback Method |
| tf | 524.53 | K | Joback Method |
| vc | 0.893 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 694.84 | J/mol×K | 844.58 | Joback Method |
| cpg | 708.18 | J/mol×K | 882.36 | Joback Method |
| cpg | 720.21 | J/mol×K | 920.15 | Joback Method |
| cpg | 730.95 | J/mol×K | 957.93 | Joback Method |
| cpg | 740.42 | J/mol×K | 995.72 | Joback Method |
| cpg | 748.63 | J/mol×K | 1033.50 | Joback Method |
| cpg | 755.59 | J/mol×K | 1071.29 | Joback Method |
| dvisc | 0.0004449 | Pa×s | 524.53 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0002680 | Pa×s | 577.87 | Joback Method |
| dvisc | 0.0001759 | Pa×s | 631.21 | Joback Method |
| dvisc | 0.0001233 | Pa×s | 684.55 | Joback Method |
| dvisc | 0.0000910 | Pa×s | 737.90 | Joback Method |
| dvisc | 0.0000699 | Pa×s | 791.24 | Joback Method |
| dvisc | 0.0000556 | Pa×s | 844.58 | Joback Method |

# Sources

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|---|---|
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U382477&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

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|---|---|
| **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 |