# Carbonic acid, ethyl 4-benzyloxyphenyl ester

**Inchi:** InChI=1S/C16H16O4/c1-2-18-16(17)20-15-10-8-14(9-11-15)19-12-13-6-4-3-5-7-13/h3-11
**InchiKey:** RZWVJFZOXDIFMQ-UHFFFAOYSA-N
**Formula:** C16H16O4
**SMILES:** CCOC(=O)Oc1ccc(OCc2ccccc2)cc1
**Mol. weight [g/mol]:** 272.30

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -144.89 | kJ/mol | Joback Method |
| hf | -421.22 | kJ/mol | Joback Method |
| hfus | 30.05 | kJ/mol | Joback Method |
| hvap | 70.40 | kJ/mol | Joback Method |
| log10ws | -4.50 | | Crippen Method |
| logp | 3.801 | | Crippen Method |
| mcvol | 207.960 | ml/mol | McGowan Method |
| pc | 2278.41 | kPa | Joback Method |
| rinpol | 2198.00 | | NIST Webbook |
| tb | 744.95 | K | Joback Method |
| tc | 972.58 | K | Joback Method |
| tf | 452.06 | K | Joback Method |
| vc | 0.775 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 570.98 | J/mol×K | 744.95 | Joback Method |
| cpg | 585.99 | J/mol×K | 782.89 | Joback Method |
| cpg | 599.81 | J/mol×K | 820.83 | Joback Method |
| cpg | 612.44 | J/mol×K | 858.76 | Joback Method |
| cpg | 623.89 | J/mol×K | 896.70 | Joback Method |
| cpg | 634.18 | J/mol×K | 934.64 | Joback Method |
| cpg | 643.32 | J/mol×K | 972.58 | Joback Method |
| dvisc | 0.0006153 | Pa×s | 452.06 | Joback Method |
| dvisc | 0.0003632 | Pa×s | 500.88 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0002354 | Pa×s | 549.69 | Joback Method |
| dvisc | 0.0001638 | Pa×s | 598.50 | Joback Method |
| dvisc | 0.0001204 | Pa×s | 647.32 | Joback Method |
| dvisc | 0.0000924 | Pa×s | 696.13 | Joback Method |
| dvisc | 0.0000734 | Pa×s | 744.95 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U357924&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 |