# 1-Propanone, 1-[4-(phenylmethoxy)phenyl]-

**Other names:** p-Benzyloxypropiophenone
4'-Benzyloxypropiophenone
Propiophenone, 4'-(benzyloxy)-
4-Benzyloxypropiophenone
**Inchi:** InChI=1S/C16H16O2/c1-2-16(17)14-8-10-15(11-9-14)18-12-13-6-4-3-5-7-13/h3-11H,2,12
**InchiKey:** IKFGSOJYHVTNDV-UHFFFAOYSA-N
**Formula:** C16H16O2
**SMILES:** CCC(=O)c1ccc(OCc2ccccc2)cc1
**Mol. weight [g/mol]:** 240.30
**CAS:** 4495-66-3

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 65.11 | kJ/mol | Joback Method |
| hf | -156.78 | kJ/mol | Joback Method |
| hfus | 27.68 | kJ/mol | Joback Method |
| hvap | 65.58 | kJ/mol | Joback Method |
| log10ws | -4.78 | | Crippen Method |
| logp | 3.858 | | Crippen Method |
| mcvol | 196.220 | ml/mol | McGowan Method |
| pc | 2354.20 | kPa | Joback Method |
| tb | 700.11 | K | Joback Method |
| tc | 933.89 | K | Joback Method |
| tf | 407.60 | K | Joback Method |
| vc | 0.740 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 517.98 | J/mol×K | 700.11 | Joback Method |
| cpg | 586.26 | J/mol×K | 894.92 | Joback Method |
| cpg | 574.82 | J/mol×K | 855.96 | Joback Method |
| cpg | 562.33 | J/mol×K | 817.00 | Joback Method |
| cpg | 548.72 | J/mol×K | 778.04 | Joback Method |

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|---|---|---|---|---|
| cpg | 533.95 | J/mol×K | 739.07 | Joback Method |
| cpg | 596.69 | J/mol×K | 933.89 | Joback Method |
| dvisc | 0.0001220 | Pa×s | 700.11 | Joback Method |
| dvisc | 0.0001544 | Pa×s | 651.36 | Joback Method |
| dvisc | 0.0002029 | Pa×s | 602.61 | Joback Method |
| dvisc | 0.0002798 | Pa×s | 553.86 | Joback Method |
| dvisc | 0.0004106 | Pa×s | 505.10 | Joback Method |
| dvisc | 0.0006540 | Pa×s | 456.35 | Joback Method |
| dvisc | 0.0011644 | Pa×s | 407.60 | Joback Method |

# Sources

**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=C4495663&Units=SI

# 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
**tb:** Normal Boiling Point Temperature
**tc:** Critical Temperature
**tf:** Normal melting (fusion) point
**vc:** Critical Volume

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