# Benzene, (octyloxy)-

**Other names:** Ether, octyl phenyl
Octyl phenyl ether
**Inchi:** InChI=1S/C14H22O/c1-2-3-4-5-6-10-13-15-14-11-8-7-9-12-14/h7-9,11-12H,2-6,10,13H2,
**InchiKey:** ZPIRTVJRHUMMOI-UHFFFAOYSA-N
**Formula:** C14H22O
**SMILES:** CCCCCCCCOc1ccccc1
**Mol. weight [g/mol]:** 206.32
**CAS:** 1818-07-1

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 74.41 | kJ/mol | Joback Method |
| hf | -227.98 | kJ/mol | Joback Method |
| hfus | 27.25 | kJ/mol | Joback Method |
| hvap | 51.44 | kJ/mol | Joback Method |
| log10ws | -4.52 | | Crippen Method |
| logp | 4.426 | | Crippen Method |
| mcvol | 190.230 | ml/mol | McGowan Method |
| pc | 1978.82 | kPa | Joback Method |
| tb | 557.35 ± 1.00 | K | NIST Webbook |
| tc | 761.36 | K | Joback Method |
| tf | 296.19 | K | Joback Method |
| vc | 0.730 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 469.94 | J/mol×K | 568.82 | Joback Method |
| cpg | 487.64 | J/mol×K | 600.91 | Joback Method |
| cpg | 504.45 | J/mol×K | 633.00 | Joback Method |
| cpg | 520.39 | J/mol×K | 665.09 | Joback Method |
| cpg | 535.50 | J/mol×K | 697.18 | Joback Method |
| cpg | 549.80 | J/mol×K | 729.27 | Joback Method |
| cpg | 563.32 | J/mol×K | 761.36 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0026196 | Pa×s | 296.19 | Joback Method |
| dvisc | 0.0011757 | Pa×s | 341.63 | Joback Method |
| dvisc | 0.0006368 | Pa×s | 387.07 | Joback Method |
| dvisc | 0.0003924 | Pa×s | 432.50 | Joback Method |
| dvisc | 0.0002651 | Pa×s | 477.94 | Joback Method |
| dvisc | 0.0001917 | Pa×s | 523.38 | Joback Method |
| dvisc | 0.0001460 | Pa×s | 568.82 | Joback Method |

# Pressure Dependent Properties

| Property code | Value | Unit | Pressure [kPa] | Source |
|---|---|---|---|---|
| tbrp | 438.70 | K | 2.70 | NIST Webbook |

# Sources

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772
**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C1818071&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
**tb:** Normal Boiling Point Temperature
**tbrp:** Boiling point at reduced pressure

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|---|---|
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |