# Cyclopentene, 3,3'-oxybis-

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|---|---|
| **Other names:** | 2-Cyclopenten-1-yl ether |
| | Ether, bis(2-cyclopentenyl) |
| | Bis(cyclopent-2-enyl) ether |
| **Inchi:** | InChI=1S/C10H14O/c1-2-6-9(5-1)11-10-7-3-4-8-10/h1,3,5,7,9-10H,2,4,6,8H2 |
| **InchiKey:** | JHXDCKWLPYBHJY-UHFFFAOYSA-N |
| **Formula:** | C10H14O |
| **SMILES:** | C1=CC(OC2C=CCC2)CC1 |
| **Mol. weight [g/mol]:** | 150.22 |
| **CAS:** | 15131-55-2 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 61.34 | kJ/mol | Joback Method |
| hf | -145.43 | kJ/mol | Joback Method |
| hfus | 13.16 | kJ/mol | Joback Method |
| hvap | 41.36 | kJ/mol | Joback Method |
| log10ws | -2.82 | | Crippen Method |
| logp | 2.440 | | Crippen Method |
| mcvol | 127.310 | ml/mol | McGowan Method |
| pc | 3217.33 | kPa | Joback Method |
| tb | 479.50 | K | Joback Method |
| tc | 704.10 | K | Joback Method |
| tf | 199.60 ± 0.60 | K | NIST Webbook |
| vc | 0.468 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 282.19 | J/mol×K | 479.50 | Joback Method |
| cpg | 301.29 | J/mol×K | 516.93 | Joback Method |
| cpg | 319.22 | J/mol×K | 554.37 | Joback Method |
| cpg | 336.00 | J/mol×K | 591.80 | Joback Method |
| cpg | 351.70 | J/mol×K | 629.23 | Joback Method |
| cpg | 366.35 | J/mol×K | 666.66 | Joback Method |

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|---|---|---|---|---|
| cpg | 380.00 | J/mol×K | 704.10 | Joback Method |
| dvisc | 0.0024199 | Pa×s | 248.01 | Joback Method |
| dvisc | 0.0014029 | Pa×s | 286.59 | Joback Method |
| dvisc | 0.0009256 | Pa×s | 325.17 | Joback Method |
| dvisc | 0.0006670 | Pa×s | 363.75 | Joback Method |
| dvisc | 0.0005119 | Pa×s | 402.34 | Joback Method |
| dvisc | 0.0004114 | Pa×s | 440.92 | Joback Method |
| dvisc | 0.0003425 | Pa×s | 479.50 | Joback Method |

# Pressure Dependent Properties

| Property code | Value | Unit | Pressure [kPa] | Source |
|---|---|---|---|---|
| tbrp | 360.20 | K | 1.60 | NIST Webbook |

# 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=C15131552&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

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|---|---|
| **tbrp:** | Boiling point at reduced pressure |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |