# Carbonic acid, (1R)-(-)-menthyl pentyl ester

**Inchi:** InChI=1S/C16H30O3/c1-5-6-7-10-18-16(17)19-15-11-14(12(2)3)9-8-13(15)4/h12-15H,5-1
**InchiKey:** CMBGMLXSDKGFSF-UHFFFAOYSA-N
**Formula:** C16H30O3
**SMILES:** CCCCCOC(=O)OC1CC(C(C)C)CCC1C
**Mol. weight [g/mol]:** 270.41

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -248.49 | kJ/mol | Joback Method |
| hf | -742.23 | kJ/mol | Joback Method |
| hfus | 31.62 | kJ/mol | Joback Method |
| hvap | 62.20 | kJ/mol | Joback Method |
| log10ws | -4.73 | | Crippen Method |
| logp | 4.791 | | Crippen Method |
| mcvol | 238.750 | ml/mol | McGowan Method |
| pc | 1504.65 | kPa | Joback Method |
| rinpol | 1750.00 | | NIST Webbook |
| rinpol | 1750.00 | | NIST Webbook |
| tb | 673.96 | K | Joback Method |
| tc | 865.79 | K | Joback Method |
| tf | 348.37 | K | Joback Method |
| vc | 0.898 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 705.74 | J/mol×K | 673.96 | Joback Method |
| cpg | 800.66 | J/mol×K | 833.82 | Joback Method |
| cpg | 783.92 | J/mol×K | 801.85 | Joback Method |
| cpg | 766.06 | J/mol×K | 769.88 | Joback Method |
| cpg | 747.08 | J/mol×K | 737.90 | Joback Method |
| cpg | 726.98 | J/mol×K | 705.93 | Joback Method |
| cpg | 816.28 | J/mol×K | 865.79 | Joback Method |
| dvisc | 0.0001336 | Pa×s | 673.96 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0001726 | Pa×s | 619.70 | Joback Method |
| dvisc | 0.0002343 | Pa×s | 565.43 | Joback Method |
| dvisc | 0.0003395 | Pa×s | 511.17 | Joback Method |
| dvisc | 0.0005370 | Pa×s | 456.90 | Joback Method |
| dvisc | 0.0009614 | Pa×s | 402.63 | Joback Method |
| dvisc | 0.0020633 | Pa×s | 348.37 | Joback Method |

# Sources

**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=U392434&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