# Cyclopentaneacetic acid

**Other names:** Cyclopentylacetic acid
**Inchi:** InChI=1S/C7H12O2/c8-7(9)5-6-3-1-2-4-6/h6H,1-5H2,(H,8,9)
**InchiKey:** YVHAIVPPUIZFBA-UHFFFAOYSA-N
**Formula:** C7H12O2
**SMILES:** O=C(O)CC1CCCC1
**Mol. weight [g/mol]:** 128.17
**CAS:** 1123-00-8

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -221.13 | kJ/mol | Joback Method |
| hf | -392.14 | kJ/mol | Joback Method |
| hfus | 13.51 | kJ/mol | Joback Method |
| hvap | 54.86 | kJ/mol | Joback Method |
| log10ws | -1.50 | | Crippen Method |
| logp | 1.651 | | Crippen Method |
| mcvol | 106.070 | ml/mol | McGowan Method |
| pc | 4135.61 | kPa | Joback Method |
| tb | 501.20 | K | NIST Webbook |
| tc | 716.27 | K | Joback Method |
| tf | 290.30 | K | Joback Method |
| vc | 0.394 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 250.06 | J/mol×K | 520.89 | Joback Method |
| cpg | 304.11 | J/mol×K | 683.71 | Joback Method |
| cpg | 294.52 | J/mol×K | 651.14 | Joback Method |
| cpg | 284.34 | J/mol×K | 618.58 | Joback Method |
| cpg | 273.56 | J/mol×K | 586.02 | Joback Method |
| cpg | 262.14 | J/mol×K | 553.45 | Joback Method |
| cpg | 313.13 | J/mol×K | 716.27 | Joback Method |
| dvisc | 0.0002179 | Pa×s | 520.89 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0003367 | Pa×s | 482.46 | Joback Method |
| dvisc | 0.0005611 | Pa×s | 444.03 | Joback Method |
| dvisc | 0.0010300 | Pa×s | 405.60 | Joback Method |
| dvisc | 0.0021470 | Pa×s | 367.16 | Joback Method |
| dvisc | 0.0053141 | Pa×s | 328.73 | Joback Method |
| dvisc | 0.0167199 | Pa×s | 290.30 | Joback Method |

# Pressure Dependent Properties

| Property code | Value | Unit | Pressure [kPa] | Source |
|---|---|---|---|---|
| tbrp | 406.70 | K | 3.10 | NIST Webbook |

# Sources

**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=C1123008&Units=SI
**Crippen Method:** http://pubs.acs.org/doi/abs/10.1021/ci990307l
**Crippen Method:** https://www.chemeo.com/doc/models/crippen_log10ws

# 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
**tc:** Critical Temperature

**tf:** Normal melting (fusion) point

**vc:** Critical Volume