# Ethylene glycol, chlorodifluoroacetate, pentafluoropropionate

**Inchi:** InChI=1S/C7H4ClF7O4/c8-6(11,12)4(17)19-2-1-18-3(16)5(9,10)7(13,14)15/h1-2H2
**InchiKey:** QIOIGSLMAMANKA-UHFFFAOYSA-N
**Formula:** C7H4ClF7O4
**SMILES:** O=C(OCCOC(=O)C(F)(F)C(F)(F)F)C(F)(F)Cl
**Mol. weight [g/mol]:** 320.55

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -1826.86 | kJ/mol | Joback Method |
| hf | -2092.17 | kJ/mol | Joback Method |
| hfus | 22.98 | kJ/mol | Joback Method |
| hvap | 44.27 | kJ/mol | Joback Method |
| log10ws | -2.42 | | Crippen Method |
| logp | 2.102 | | Crippen Method |
| mcvol | 149.000 | ml/mol | McGowan Method |
| pc | 2282.77 | kPa | Joback Method |
| rinpol | 939.00 | | NIST Webbook |
| rinpol | 939.00 | | NIST Webbook |
| tb | 534.77 | K | Joback Method |
| tc | 698.71 | K | Joback Method |
| tf | 354.28 | K | Joback Method |
| vc | 0.618 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 371.98 | J/mol×K | 534.77 | Joback Method |
| cpg | 380.74 | J/mol×K | 562.09 | Joback Method |
| cpg | 388.91 | J/mol×K | 589.42 | Joback Method |
| cpg | 396.51 | J/mol×K | 616.74 | Joback Method |
| cpg | 403.56 | J/mol×K | 644.06 | Joback Method |
| cpg | 410.10 | J/mol×K | 671.39 | Joback Method |
| cpg | 416.15 | J/mol×K | 698.71 | Joback Method |

# Sources

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|---|---|
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U375915&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

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|---|---|
| **cpg:** | Ideal gas heat capacity |
| **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 |