# 4-Hydroxy-6-oxohept-4-enoic acid, pentafluoropropionate

**Inchi:** InChI=1S/C10H9F5O5/c1-5(16)4-6(2-3-7(17)18)20-8(19)9(11,12)10(13,14)15/h4H,2-3H2
**InchiKey:** OLVDGDKLKGAHHM-XQRVVYSFSA-N
**Formula:** C10H9F5O5
**SMILES:** CC(=O)C=C(CCC(=O)O)OC(=O)C(F)(F)C(F)(F)F
**Mol. weight [g/mol]:** 304.17

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -1491.96 | kJ/mol | Joback Method |
| hf | -1762.54 | kJ/mol | Joback Method |
| hfus | 31.19 | kJ/mol | Joback Method |
| hvap | 70.54 | kJ/mol | Joback Method |
| log10ws | -2.58 | | Crippen Method |
| logp | 2.065 | | Crippen Method |
| mcvol | 172.760 | ml/mol | McGowan Method |
| pc | 2393.53 | kPa | Joback Method |
| rinpol | 1278.00 | | NIST Webbook |
| tb | 698.34 | K | Joback Method |
| tc | 873.66 | K | Joback Method |
| tf | 424.05 | K | Joback Method |
| vc | 0.700 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 482.99 | J/mol×K | 698.34 | Joback Method |
| cpg | 491.35 | J/mol×K | 727.56 | Joback Method |
| cpg | 499.14 | J/mol×K | 756.78 | Joback Method |
| cpg | 506.39 | J/mol×K | 786.00 | Joback Method |
| cpg | 513.15 | J/mol×K | 815.22 | Joback Method |
| cpg | 519.45 | J/mol×K | 844.44 | Joback Method |
| cpg | 525.34 | J/mol×K | 873.66 | Joback Method |

# Sources

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|---|---|
| **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=U374241&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# 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 |