# 2-Decanol, heptafluorobutyrate

**Inchi:** InChI=1S/C14H21F7O2/c1-3-4-5-6-7-8-9-10(2)23-11(22)12(15,16)13(17,18)14(19,20)21/
**InchiKey:** RVXVQCAJFIKZHO-UHFFFAOYSA-N
**Formula:** C14H21F7O2
**SMILES:** CCCCCCCCC(C)OC(=O)C(F)(F)C(F)(F)C(F)(F)F
**Mol. weight [g/mol]:** 354.30

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -1524.51 | kJ/mol | Joback Method |
| hf | -1981.39 | kJ/mol | Joback Method |
| hfus | 30.60 | kJ/mol | Joback Method |
| hvap | 45.92 | kJ/mol | Joback Method |
| log10ws | -5.95 | | Crippen Method |
| logp | 5.502 | | Crippen Method |
| mcvol | 227.950 | ml/mol | McGowan Method |
| pc | 1307.06 | kPa | Joback Method |
| rinpol | 1244.80 | | NIST Webbook |
| rinpol | 1244.80 | | NIST Webbook |
| tb | 580.77 | K | Joback Method |
| tc | 732.00 | K | Joback Method |
| tf | 316.09 | K | Joback Method |
| vc | 0.930 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 631.85 | J/mol×K | 580.77 | Joback Method |
| cpg | 646.99 | J/mol×K | 605.98 | Joback Method |
| cpg | 661.35 | J/mol×K | 631.18 | Joback Method |
| cpg | 674.97 | J/mol×K | 656.39 | Joback Method |
| cpg | 687.87 | J/mol×K | 681.59 | Joback Method |
| cpg | 700.10 | J/mol×K | 706.80 | Joback Method |
| cpg | 711.68 | J/mol×K | 732.00 | Joback Method |

# 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=U352326&Units=SI |

# Legend

| | |
|---|---|
| **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 |