# Glutaric acid, 2,2,3,3-tetrafluoropropyl 2,4-dimethylpent-3-yl ester

**Inchi:** InChI=1S/C15H24F4O4/c1-9(2)13(10(3)4)23-12(21)7-5-6-11(20)22-8-15(18,19)14(16)17

**InchiKey:** NVCFPFOVYNCMPM-UHFFFAOYSA-N

**Formula:** C15H24F4O4

**SMILES:** CC(C)C(OC(=O)CCCC(=O)OCC(F)(F)C(F)F)C(C)C

**Mol. weight [g/mol]:** 344.34

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -1178.58 | kJ/mol | Joback Method |
| hf | -1656.84 | kJ/mol | Joback Method |
| hfus | 30.99 | kJ/mol | Joback Method |
| hvap | 61.18 | kJ/mol | Joback Method |
| log10ws | -4.08 | | Crippen Method |
| logp | 3.824 | | Crippen Method |
| mcvol | 244.170 | ml/mol | McGowan Method |
| pc | 1376.84 | kPa | Joback Method |
| rinpol | 1584.00 | | NIST Webbook |
| rinpol | 1584.00 | | NIST Webbook |
| tb | 687.27 | K | Joback Method |
| tc | 857.61 | K | Joback Method |
| tf | 347.91 | K | Joback Method |
| vc | 0.961 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 712.90 | J/mol×K | 687.27 | Joback Method |
| cpg | 728.21 | J/mol×K | 715.66 | Joback Method |
| cpg | 742.72 | J/mol×K | 744.05 | Joback Method |
| cpg | 756.44 | J/mol×K | 772.44 | Joback Method |
| cpg | 769.39 | J/mol×K | 800.83 | Joback Method |
| cpg | 781.59 | J/mol×K | 829.22 | Joback Method |
| cpg | 793.05 | J/mol×K | 857.61 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U393470&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

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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 |