# Glutaric acid, ethyl phenethyl ester

**Inchi:** InChI=1S/C15H20O4/c1-2-18-14(16)9-6-10-15(17)19-12-11-13-7-4-3-5-8-13/h3-5,7-8H,2
**InchiKey:** FPQBZSUSJOFASI-UHFFFAOYSA-N
**Formula:** C15H20O4
**SMILES:** CCOC(=O)CCCC(=O)OCCc1ccccc1
**Mol. weight [g/mol]:** 264.32

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -280.01 | kJ/mol | Joback Method |
| hf | -606.00 | kJ/mol | Joback Method |
| hfus | 34.22 | kJ/mol | Joback Method |
| hvap | 69.57 | kJ/mol | Joback Method |
| log10ws | -2.93 | | Crippen Method |
| logp | 2.506 | | Crippen Method |
| mcvol | 213.330 | ml/mol | McGowan Method |
| pc | 2001.91 | kPa | Joback Method |
| rinpol | 2008.00 | | NIST Webbook |
| tb | 721.86 | K | Joback Method |
| tc | 924.67 | K | Joback Method |
| tf | 429.55 | K | Joback Method |
| vc | 0.816 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 594.46 | J/mol×K | 721.86 | Joback Method |
| cpg | 609.36 | J/mol×K | 755.66 | Joback Method |
| cpg | 623.31 | J/mol×K | 789.46 | Joback Method |
| cpg | 636.32 | J/mol×K | 823.26 | Joback Method |
| cpg | 648.41 | J/mol×K | 857.07 | Joback Method |
| cpg | 659.60 | J/mol×K | 890.87 | Joback Method |
| cpg | 669.89 | J/mol×K | 924.67 | Joback Method |
| dvisc | 0.0011088 | Pa×s | 429.55 | Joback Method |
| dvisc | 0.0006139 | Pa×s | 478.27 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0003792 | Pa×s | 526.99 | Joback Method |
| dvisc | 0.0002541 | Pa×s | 575.70 | Joback Method |
| dvisc | 0.0001812 | Pa×s | 624.42 | Joback Method |
| dvisc | 0.0001358 | Pa×s | 673.14 | Joback Method |
| dvisc | 0.0001057 | Pa×s | 721.86 | Joback Method |

# Sources

**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=U358676&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

**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
**rinpol:** Non-polar retention indices
**tb:** Normal Boiling Point Temperature
**tc:** Critical Temperature
**tf:** Normal melting (fusion) point
**vc:** Critical Volume