# Glutaric acid, di(3-(2-methoxyethyl)heptyl) ester

**Inchi:** InChI=1S/C25H48O6/c1-5-7-10-22(14-18-28-3)16-20-30-24(26)12-9-13-25(27)31-21-17-

**InchiKey:** FVRYRYXWXXPSCU-UHFFFAOYSA-N

**Formula:** C25H48O6

**SMILES:** CCCCC(CCOC)CCOC(=O)CCCC(=O)OCCC(CCCC)CCOC

**Mol. weight [g/mol]:** 444.64

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -523.10 | kJ/mol | Joback Method |
| hf | -1323.93 | kJ/mol | Joback Method |
| hfus | 61.41 | kJ/mol | Joback Method |
| hvap | 93.60 | kJ/mol | Joback Method |
| log10ws | -5.70 | | Crippen Method |
| logp | 5.709 | | Crippen Method |
| mcvol | 389.730 | ml/mol | McGowan Method |
| pc | 796.18 | kPa | Joback Method |
| rinpol | 2818.00 | | NIST Webbook |
| rinpol | 2818.00 | | NIST Webbook |
| tb | 967.94 | K | Joback Method |
| tc | 1192.43 | K | Joback Method |
| tf | 530.29 | K | Joback Method |
| vc | 1.508 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1345.33 | J/mol×K | 967.94 | Joback Method |
| cpg | 1423.22 | J/mol×K | 1155.02 | Joback Method |
| cpg | 1411.59 | J/mol×K | 1117.60 | Joback Method |
| cpg | 1398.01 | J/mol×K | 1080.19 | Joback Method |
| cpg | 1382.45 | J/mol×K | 1042.77 | Joback Method |
| cpg | 1364.89 | J/mol×K | 1005.36 | Joback Method |
| cpg | 1432.90 | J/mol×K | 1192.43 | Joback Method |
| dvisc | 0.0000113 | Pa×s | 967.94 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0000155 | Pa×s | 895.00 | Joback Method |
| dvisc | 0.0000224 | Pa×s | 822.06 | Joback Method |
| dvisc | 0.0000348 | Pa×s | 749.12 | Joback Method |
| dvisc | 0.0000594 | Pa×s | 676.17 | Joback Method |
| dvisc | 0.0001156 | Pa×s | 603.23 | Joback Method |
| dvisc | 0.0002700 | Pa×s | 530.29 | Joback Method |

# Sources

| | |
|---|---|
| **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=U358531&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# 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 |