

# Glutaric acid, monochloride, 2-hexyl ester

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C11H19ClO3/c1-3-4-6-9(2)15-11(14)8-5-7-10(12)13/h9H,3-8H2,1-2H3 |
| <b>InchiKey:</b>            | XFBCPFNWRIFUEL-UHFFFAOYSA-N  |
| <b>Formula:</b>             | C11H19ClO3   |
| <b>SMILES:</b>              | CCCCC(C)OC(=O)CCCC(=O)Cl   |
| <b>Mol. weight [g/mol]:</b> | 234.72   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -335.47 | kJ/mol               | Joback Method  |
| hf            | -648.77 | kJ/mol               | Joback Method  |
| hfus          | 29.31   | kJ/mol               | Joback Method  |
| hvap          | 59.98   | kJ/mol               | Joback Method  |
| log10ws       | -3.33   |                      | Crippen Method |
| logp          | 3.044   |                      | Crippen Method |
| mcvol         | 187.100 | ml/mol               | McGowan Method |
| pc            | 2077.43 | kPa                  | Joback Method  |
| rinpola       | 1534.00 |                      | NIST Webbook   |
| tb            | 618.23  | K                    | Joback Method  |
| tc            | 805.12  | K                    | Joback Method  |
| tf            | 350.74  | K                    | Joback Method  |
| vc            | 0.725   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 468.05    | J/molxK | 618.23          | Joback Method |
| cpg           | 481.72    | J/molxK | 649.38          | Joback Method |
| cpg           | 494.73    | J/molxK | 680.53          | Joback Method |
| cpg           | 507.08    | J/molxK | 711.67          | Joback Method |
| cpg           | 518.79    | J/molxK | 742.82          | Joback Method |
| cpg           | 529.86    | J/molxK | 773.97          | Joback Method |
| cpg           | 540.31    | J/molxK | 805.12          | Joback Method |
| dvisc         | 0.0027334 | Paxs    | 350.74          | Joback Method |
| dvisc         | 0.0013605 | Paxs    | 395.32          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0007801 | Paxs | 439.90 | Joback Method |
| dvisc | 0.0004955 | Paxs | 484.49 | Joback Method |
| dvisc | 0.0003397 | Paxs | 529.07 | Joback Method |
| dvisc | 0.0002470 | Paxs | 573.65 | Joback Method |
| dvisc | 0.0001880 | Paxs | 618.23 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <b>McGowan Method:</b> | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                     |
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U359655&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U359655&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>                                 |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                         |
| <b>Joback Method:</b>  | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                     |

## Legend

|                 |   |
|-----------------|---|
| <b>cpg:</b>     | Ideal gas heat capacity                         |
| <b>dvisc:</b>   | Dynamic viscosity                               |
| <b>gf:</b>      | Standard Gibbs free energy of formation         |
| <b>hf:</b>      | Enthalpy of formation at standard conditions    |
| <b>hfus:</b>    | Enthalpy of fusion at standard conditions       |
| <b>hvap:</b>    | Enthalpy of vaporization at standard conditions |
| <b>log10ws:</b> | Log10 of Water solubility in mol/l              |
| <b>logp:</b>    | Octanol/Water partition coefficient             |
| <b>mcvol:</b>   | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |
| <b>rinpol:</b>  | Non-polar retention indices                     |
| <b>tb:</b>      | Normal Boiling Point Temperature                |
| <b>tc:</b>      | Critical Temperature                            |
| <b>tf:</b>      | Normal melting (fusion) point                   |
| <b>vc:</b>      | Critical Volume                                 |

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