

# Glutaric acid, 3-chlorophenyl 2-ethylbutyl ester

|                      |  |
|----------------------|--|
| Inchi:               | InChI=1S/C17H23ClO4/c1-3-13(4-2)12-21-16(19)9-6-10-17(20)22-15-8-5-7-14(18)11-15 |
| InchiKey:            | HALDCCLQIKQUCL-UHFFFAOYSA-N  |
| Formula:             | C17H23ClO4   |
| SMILES:              | CCC(CC)COC(=O)CCCC(=O)Oc1cccc(Cl)c1  |
| Mol. weight [g/mol]: | 326.81   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -287.17 | kJ/mol               | Joback Method  |
| hf            | -679.77 | kJ/mol               | Joback Method  |
| hfus          | 39.69   | kJ/mol               | Joback Method  |
| hvap          | 78.68   | kJ/mol               | Joback Method  |
| log10ws       | -4.86   |                      | Crippen Method |
| logp          | 4.395   |                      | Crippen Method |
| mcvol         | 253.750 | ml/mol               | McGowan Method |
| pc            | 1637.78 | kPa                  | Joback Method  |
| rinpola       | 2289.00 |                      | NIST Webbook   |
| rinpola       | 2289.00 |                      | NIST Webbook   |
| tb            | 809.59  | K                    | Joback Method  |
| tc            | 1016.62 | K                    | Joback Method  |
| tf            | 479.53  | K                    | Joback Method  |
| vc            | 0.971   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 731.89    | J/molxK | 809.59          | Joback Method |
| cpg           | 746.34    | J/molxK | 844.09          | Joback Method |
| cpg           | 759.73    | J/molxK | 878.60          | Joback Method |
| cpg           | 772.07    | J/molxK | 913.10          | Joback Method |
| cpg           | 783.39    | J/molxK | 947.61          | Joback Method |
| cpg           | 793.70    | J/molxK | 982.11          | Joback Method |
| cpg           | 803.02    | J/molxK | 1016.62         | Joback Method |
| dvisc         | 0.0007413 | Paxs    | 479.53          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0004031 | Paxs | 534.54 | Joback Method |
| dvisc | 0.0002455 | Paxs | 589.55 | Joback Method |
| dvisc | 0.0001628 | Paxs | 644.56 | Joback Method |
| dvisc | 0.0001151 | Paxs | 699.57 | Joback Method |
| dvisc | 0.0000857 | Paxs | 754.58 | Joback Method |
| dvisc | 0.0000663 | Paxs | 809.59 | 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=U391671&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U391671&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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