

# Glutaric acid, tridec-2-yn-1-yl 2,3-dimethylphenyl ester

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C26H38O4/c1-4-5-6-7-8-9-10-11-12-13-14-21-29-25(27)19-16-20-26(28)30-24 |
| <b>InchiKey:</b>            | SYTGAAYVSCHMHQ-UHFFFAOYSA-N  |
| <b>Formula:</b>             | C26H38O4   |
| <b>SMILES:</b>              | CCCCCCCCC#CCOC(=O)CCCC(=O)Oc1ccc(C)c1C   |
| <b>Mol. weight [g/mol]:</b> | 414.58   |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -3.85   | kJ/mol  | Joback Method  |
| hf            | -583.68 | kJ/mol  | Joback Method  |
| hfus          | 65.06   | kJ/mol  | Joback Method  |
| hvap          | 97.53   | kJ/mol  | Joback Method  |
| log10ws       | -8.09   |         | Crippen Method |
| logp          | 6.457   |         | Crippen Method |
| mcvol         | 359.720 | ml/mol  | McGowan Method |
| pc            | 1000.81 | kPa     | Joback Method  |
| rinpol        | 3134.00 |         | NIST Webbook   |
| tb            | 992.50  | K       | Joback Method  |
| tc            | 1215.37 | K       | Joback Method  |
| tf            | 684.66  | K       | Joback Method  |
| vc            | 1.393   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value   | Unit    | Temperature [K] | Source        |
|---------------|---------|---------|-----------------|---------------|
| cpg           | 1186.62 | J/molxK | 992.50          | Joback Method |
| cpg           | 1202.76 | J/molxK | 1029.64         | Joback Method |
| cpg           | 1217.39 | J/molxK | 1066.79         | Joback Method |
| cpg           | 1230.55 | J/molxK | 1103.93         | Joback Method |
| cpg           | 1242.26 | J/molxK | 1141.08         | Joback Method |
| cpg           | 1252.57 | J/molxK | 1178.22         | Joback Method |
| cpg           | 1261.52 | J/molxK | 1215.37         | Joback Method |

# Sources

|                        |   |
|------------------------|---|
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</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>                                     |
| <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=U392229&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U392229&amp;Units=SI</a> |

# Legend

|                 |   |
|-----------------|---|
| <b>cpg:</b>     | Ideal gas heat capacity                         |
| <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>rinpola:</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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