

# Glutaric acid, 2,6-dimethoxyphenyl heptyl ester

|                      |                                                                                   |
|----------------------|-----------------------------------------------------------------------------------|
| Inchi:               | InChI=1S/C20H30O6/c1-4-5-6-7-8-15-25-18(21)13-10-14-19(22)26-20-16(23-2)11-9-12-1 |
| InchiKey:            | QZNQTIWWLYJTBU-UHFFFAOYSA-N                                                       |
| Formula:             | C20H30O6                                                                          |
| SMILES:              | CCCCCCCCOC(=O)CCCC(=O)Oc1c(OC)cccc1OC                                             |
| Mol. weight [g/mol]: | 366.45                                                                            |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -467.17 | kJ/mol  | Joback Method  |
| hf            | -996.58 | kJ/mol  | Joback Method  |
| hfus          | 48.77   | kJ/mol  | Joback Method  |
| hvap          | 86.85   | kJ/mol  | Joback Method  |
| log10ws       | -5.07   |         | Crippen Method |
| logp          | 4.293   |         | Crippen Method |
| mcvol         | 295.520 | ml/mol  | McGowan Method |
| pc            | 1294.86 | kPa     | Joback Method  |
| rinpol        | 2704.00 |         | NIST Webbook   |
| tb            | 891.06  | K       | Joback Method  |
| tc            | 1095.64 | K       | Joback Method  |
| tf            | 555.40  | K       | Joback Method  |
| vc            | 1.131   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 935.42    | J/mol×K | 891.06          | Joback Method |
| cpg           | 996.85    | J/mol×K | 1061.54         | Joback Method |
| cpg           | 987.28    | J/mol×K | 1027.45         | Joback Method |
| cpg           | 976.34    | J/mol×K | 993.35          | Joback Method |
| cpg           | 964.04    | J/mol×K | 959.25          | Joback Method |
| cpg           | 950.40    | J/mol×K | 925.16          | Joback Method |
| cpg           | 1005.05   | J/mol×K | 1095.64         | Joback Method |
| dvisc         | 0.0000312 | Pa×s    | 891.06          | Joback Method |
| dvisc         | 0.0000394 | Pa×s    | 835.12          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0000515 | Pa×s | 779.17 | Joback Method |
| dvisc | 0.0000700 | Pa×s | 723.23 | Joback Method |
| dvisc | 0.0001004 | Pa×s | 667.29 | Joback Method |
| dvisc | 0.0001537 | Pa×s | 611.34 | Joback Method |
| dvisc | 0.0002563 | Pa×s | 555.40 | Joback Method |

## Sources

|                        |                                                                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <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=U358710&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U358710&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>                                 |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</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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