

# Glutaric acid, 2-methylpent-3-yl octyl ester

Inchi:

InchiKey:

Formula:

SMILES:

Mol. weight [g/mol]:

InChI=1S/C19H36O4/c1-5-7-8-9-10-11-15-22-18(20)13-12-14-19(21)23-17(6-2)16(3)4/h1-4,11-14,21-22H,2-10,23H2

JOUGZANKENWVSD-UHFFFAOYSA-N

C19H36O4

CCCCCCCCOC(=O)CCCC(=O)OC(CC)C(C)C

328.49

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -363.62 | kJ/mol  | Joback Method  |
| hf            | -935.65 | kJ/mol  | Joback Method  |
| hfus          | 43.49   | kJ/mol  | Joback Method  |
| hvap          | 75.42   | kJ/mol  | Joback Method  |
| log10ws       | -5.37   |         | Crippen Method |
| logp          | 5.038   |         | Crippen Method |
| mcvol         | 293.450 | ml/mol  | McGowan Method |
| pc            | 1161.66 | kPa     | Joback Method  |
| rinpol        | 2180.00 |         | NIST Webbook   |
| rinpol        | 2180.00 |         | NIST Webbook   |
| rinpol        | 2262.00 |         | NIST Webbook   |
| tb            | 785.82  | K       | Joback Method  |
| tc            | 968.88  | K       | Joback Method  |
| tf            | 418.21  | K       | Joback Method  |
| vc            | 1.135   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value   | Unit    | Temperature [K] | Source        |
|---------------|---------|---------|-----------------|---------------|
| cpg           | 909.87  | J/mol×K | 785.82          | Joback Method |
| cpg           | 927.92  | J/mol×K | 816.33          | Joback Method |
| cpg           | 944.96  | J/mol×K | 846.84          | Joback Method |
| cpg           | 961.00  | J/mol×K | 877.35          | Joback Method |
| cpg           | 976.05  | J/mol×K | 907.86          | Joback Method |
| cpg           | 990.13  | J/mol×K | 938.37          | Joback Method |
| cpg           | 1003.26 | J/mol×K | 968.88          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0013492 | Pa×s | 418.21 | Joback Method |
| dvisc | 0.0005543 | Pa×s | 479.48 | Joback Method |
| dvisc | 0.0002785 | Pa×s | 540.75 | Joback Method |
| dvisc | 0.0001610 | Pa×s | 602.01 | Joback Method |
| dvisc | 0.0001030 | Pa×s | 663.28 | Joback Method |
| dvisc | 0.0000711 | Pa×s | 724.55 | Joback Method |
| dvisc | 0.0000520 | Pa×s | 785.82 | 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=U359516&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U359516&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>                         |
| <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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