

# Diglycolic acid, isoheptyl neopentyl ester

|                      |                                                                                  |
|----------------------|----------------------------------------------------------------------------------|
| Inchi:               | InChI=1S/C15H28O5/c1-12(2)7-6-8-19-13(16)9-18-10-14(17)20-11-15(3,4)5/h12H,6-11H |
| InchiKey:            | FKOSFJAESXOTJC-UHFFFAOYSA-N                                                      |
| Formula:             | C15H28O5                                                                         |
| SMILES:              | CC(C)CCCOC(=O)COCC(=O)OCC(C)(C)C                                                 |
| Mol. weight [g/mol]: | 288.38                                                                           |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -497.02 | kJ/mol  | Joback Method  |
| hf            | -988.78 | kJ/mol  | Joback Method  |
| hfus          | 30.43   | kJ/mol  | Joback Method  |
| hvap          | 68.02   | kJ/mol  | Joback Method  |
| log10ws       | -2.43   |         | Crippen Method |
| logp          | 2.572   |         | Crippen Method |
| mcvol         | 242.960 | ml/mol  | McGowan Method |
| pc            | 1530.66 | kPa     | Joback Method  |
| rinpol        | 2200.00 |         | NIST Webbook   |
| rinpol        | 2200.00 |         | NIST Webbook   |
| tb            | 713.93  | K       | Joback Method  |
| tc            | 898.50  | K       | Joback Method  |
| tf            | 412.78  | K       | Joback Method  |
| vc            | 0.924   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 709.41    | J/mol×K | 713.93          | Joback Method |
| cpg           | 725.84    | J/mol×K | 744.69          | Joback Method |
| cpg           | 741.38    | J/mol×K | 775.45          | Joback Method |
| cpg           | 756.04    | J/mol×K | 806.22          | Joback Method |
| cpg           | 769.83    | J/mol×K | 836.98          | Joback Method |
| cpg           | 782.75    | J/mol×K | 867.74          | Joback Method |
| cpg           | 794.83    | J/mol×K | 898.50          | Joback Method |
| dvisc         | 0.0011564 | Pa×s    | 412.78          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0005456 | Pa×s | 462.97 | Joback Method |
| dvisc | 0.0002982 | Pa×s | 513.16 | Joback Method |
| dvisc | 0.0001815 | Pa×s | 563.36 | Joback Method |
| dvisc | 0.0001198 | Pa×s | 613.55 | Joback Method |
| dvisc | 0.0000842 | Pa×s | 663.74 | Joback Method |
| dvisc | 0.0000622 | Pa×s | 713.93 | Joback Method |

## Sources

|                        |                                                                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <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>                                     |
| <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=U381918&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U381918&amp;Units=SI</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>mccvol:</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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