

# Adipic acid, 8-chlorooctyl isohexyl ester

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C20H37ClO4/c1-18(2)12-11-17-25-20(23)14-8-7-13-19(22)24-16-10-6-4-3-5-9 |
| <b>InchiKey:</b>            | FMZUTOFLYCLHDY-UHFFFAOYSA-N  |
| <b>Formula:</b>             | C20H37ClO4   |
| <b>SMILES:</b>              | CC(C)CCCOC(=O)CCCCC(=O)OCCCCCCCCCI   |
| <b>Mol. weight [g/mol]:</b> | 376.96   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -364.69 | kJ/mol               | Joback Method  |
| hf            | -966.75 | kJ/mol               | Joback Method  |
| hfus          | 53.80   | kJ/mol               | Joback Method  |
| hvap          | 82.42   | kJ/mol               | Joback Method  |
| log10ws       | -5.83   |                      | Crippen Method |
| logp          | 5.649   |                      | Crippen Method |
| mvol          | 319.780 | ml/mol               | McGowan Method |
| pc            | 1057.57 | kPa                  | Joback Method  |
| rinpol        | 2614.00 |                      | NIST Webbook   |
| rinpol        | 2614.00 |                      | NIST Webbook   |
| tb            | 846.57  | K                    | Joback Method  |
| tc            | 1037.93 | K                    | Joback Method  |
| tf            | 474.40  | K                    | Joback Method  |
| vc            | 1.246   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 1001.30   | J/molxK | 846.57          | Joback Method |
| cpg           | 1018.70   | J/molxK | 878.46          | Joback Method |
| cpg           | 1034.98   | J/molxK | 910.36          | Joback Method |
| cpg           | 1050.18   | J/molxK | 942.25          | Joback Method |
| cpg           | 1064.31   | J/molxK | 974.15          | Joback Method |
| cpg           | 1077.39   | J/molxK | 1006.04         | Joback Method |
| cpg           | 1089.45   | J/molxK | 1037.93         | Joback Method |
| dvisc         | 0.0007660 | Paxs    | 474.40          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0003564 | Paxs | 536.43 | Joback Method |
| dvisc | 0.0001943 | Paxs | 598.46 | Joback Method |
| dvisc | 0.0001187 | Paxs | 660.48 | Joback Method |
| dvisc | 0.0000789 | Paxs | 722.51 | Joback Method |
| dvisc | 0.0000560 | Paxs | 784.54 | Joback Method |
| dvisc | 0.0000418 | Paxs | 846.57 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <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>                                     |
| <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=U349760&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U349760&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>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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