

# Myristyl myristate

|                             |  |
|-----------------------------|--|
| <b>Other names:</b>         | Tetradecanoic acid, tetradecyl ester<br>Myristic acid, tetradecyl ester<br>Ceraphyl 424<br>Cyclochem MM<br>Tetradecyl myristate<br>Tetradecyl tetradecanoate<br>Alkamuls MM/M<br>Cetiol MM<br>Crodamol MM<br>Liponate MM<br>Myristyl tetradecanoate<br>Schercemol MM<br>Waxenol 810<br>1-Tetradecanol, myristate |
| <b>Inchi:</b>               | InChI=1S/C28H56O2/c1-3-5-7-9-11-13-15-17-19-21-23-25-27-30-28(29)26-24-22-20-18-   |
| <b>InchiKey:</b>            | DZKXJUASMGQEMA-UHFFFAOYSA-N  |
| <b>Formula:</b>             | C28H56O2   |
| <b>SMILES:</b>              | CCCCCCCCCCCCCOC(=O)CCCCCCCCCCCCC   |
| <b>Mol. weight [g/mol]:</b> | 424.74   |
| <b>CAS:</b>                 | 3234-85-3  |

## Physical Properties

| Property code | Value   | Unit   | Source         |
|---------------|---------|--------|----------------|
| gf            | -49.04  | kJ/mol | Joback Method  |
| hf            | -866.05 | kJ/mol | Joback Method  |
| hfus          | 71.06   | kJ/mol | Joback Method  |
| hvap          | 87.08   | kJ/mol | Joback Method  |
| log10ws       | -10.41  |        | Crippen Method |
| logp          | 9.932   |        | Crippen Method |
| mcvol         | 412.820 | ml/mol | McGowan Method |
| pc            | 671.16  | kPa    | Joback Method  |
| rinpol        | 2947.00 |        | NIST Webbook   |
| rinpol        | 2947.00 |        | NIST Webbook   |
| rinpol        | 2950.07 |        | NIST Webbook   |
| rinpol        | 2946.00 |        | NIST Webbook   |
| tb            | 916.33  | K      | Joback Method  |
| tc            | 1129.21 | K      | Joback Method  |

|    |        |                      |               |
|----|--------|----------------------|---------------|
| tf | 477.48 | K                    | Joback Method |
| vc | 1.627  | m <sup>3</sup> /kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 1416.23   | J/mol×K | 916.33          | Joback Method |
| cpg           | 1440.70   | J/mol×K | 951.81          | Joback Method |
| cpg           | 1463.57   | J/mol×K | 987.29          | Joback Method |
| cpg           | 1484.93   | J/mol×K | 1022.77         | Joback Method |
| cpg           | 1504.83   | J/mol×K | 1058.25         | Joback Method |
| cpg           | 1523.34   | J/mol×K | 1093.73         | Joback Method |
| cpg           | 1540.54   | J/mol×K | 1129.21         | Joback Method |
| dvisc         | 0.0006385 | Paxs    | 477.48          | Joback Method |
| dvisc         | 0.0002539 | Paxs    | 550.62          | Joback Method |
| dvisc         | 0.0001253 | Paxs    | 623.76          | Joback Method |
| dvisc         | 0.0000717 | Paxs    | 696.90          | Joback Method |
| dvisc         | 0.0000457 | Paxs    | 770.05          | Joback Method |
| dvisc         | 0.0000314 | Paxs    | 843.19          | Joback Method |
| dvisc         | 0.0000230 | Paxs    | 916.33          | 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=C3234853&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C3234853&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>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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