

# 2-Heptenoic acid, 3-methylphenyl ester

|                             |   |
|-----------------------------|---|
| <b>Inchi:</b>               | InChI=1S/C14H18O2/c1-3-4-5-6-10-14(15)16-13-9-7-8-12(2)11-13/h6-11H,3-5H2,1-2H3 |
| <b>InchiKey:</b>            | AFDOMHJVWVYGL-UXBLZVDNSA-N  |
| <b>Formula:</b>             | C14H18O2  |
| <b>SMILES:</b>              | CCCCC=CC(=O)Oc1cccc(C)c1  |
| <b>Mol. weight [g/mol]:</b> | 218.29  |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | 16.08   | kJ/mol               | Joback Method  |
| hf            | -234.81 | kJ/mol               | Joback Method  |
| hfus          | 28.66   | kJ/mol               | Joback Method  |
| hvap          | 58.81   | kJ/mol               | Joback Method  |
| log10ws       | -4.21   |                      | Crippen Method |
| logp          | 3.647   |                      | Crippen Method |
| mvol          | 187.500 | ml/mol               | McGowan Method |
| pc            | 2167.36 | kPa                  | Joback Method  |
| rinpol        | 1756.00 |                      | NIST Webbook   |
| rinpol        | 1756.00 |                      | NIST Webbook   |
| tb            | 631.83  | K                    | Joback Method  |
| tc            | 840.79  | K                    | Joback Method  |
| tf            | 353.56  | K                    | Joback Method  |
| vc            | 0.716   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 472.86    | J/molxK | 631.83          | Joback Method |
| cpg           | 542.23    | J/molxK | 805.96          | Joback Method |
| cpg           | 530.04    | J/molxK | 771.13          | Joback Method |
| cpg           | 517.05    | J/molxK | 736.31          | Joback Method |
| cpg           | 503.21    | J/molxK | 701.48          | Joback Method |
| cpg           | 488.49    | J/molxK | 666.66          | Joback Method |
| cpg           | 553.65    | J/molxK | 840.79          | Joback Method |
| dvisc         | 0.0001284 | Paxs    | 631.83          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0001641 | Paxs | 585.45 | Joback Method |
| dvisc | 0.0002187 | Paxs | 539.07 | Joback Method |
| dvisc | 0.0003077 | Paxs | 492.69 | Joback Method |
| dvisc | 0.0004647 | Paxs | 446.32 | Joback Method |
| dvisc | 0.0007724 | Paxs | 399.94 | Joback Method |
| dvisc | 0.0014668 | Paxs | 353.56 | 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=U406905&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U406905&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>cp<sub>g</sub>:</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>log<sub>10</sub>ws:</b> | Log <sub>10</sub> of Water solubility in mol/l  |
| <b>logp:</b>               | Octanol/Water partition coefficient             |
| <b>m<sub>cvol</sub>:</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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