

# 2-Hexenal, 5-methyl-2-phenyl

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C14H18O/c1-3-12(2)9-10-14(11-15)13-7-5-4-6-8-13/h4-8,10-12H,3,9H2,1-2H3 |
| <b>InchiKey:</b>            | BOJMHRVYPALVNQ-UVTDQMKNSA-N  |
| <b>Formula:</b>             | C14H18O  |
| <b>SMILES:</b>              | CCC(C)CC=C(C=O)c1ccccc1  |
| <b>Mol. weight [g/mol]:</b> | 202.29   |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | 149.12  | kJ/mol  | Joback Method  |
| hf            | -79.19  | kJ/mol  | Joback Method  |
| hfus          | 23.71   | kJ/mol  | Joback Method  |
| hvap          | 55.40   | kJ/mol  | Joback Method  |
| log10ws       | -3.84   |         | Crippen Method |
| logp          | 3.705   |         | Crippen Method |
| mcvol         | 181.630 | ml/mol  | McGowan Method |
| pc            | 2284.95 | kPa     | Joback Method  |
| rinpol        | 1456.00 |         | NIST Webbook   |
| rinpol        | 1456.00 |         | NIST Webbook   |
| rinpol        | 1456.00 |         | NIST Webbook   |
| rinpol        | 1456.00 |         | NIST Webbook   |
| rinpol        | 1495.00 |         | NIST Webbook   |
| ripol         | 2000.00 |         | NIST Webbook   |
| tb            | 598.66  | K       | Joback Method  |
| tc            | 812.17  | K       | Joback Method  |
| tf            | 281.92  | K       | Joback Method  |
| vc            | 0.704   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 447.27 | J/molxK | 598.66          | Joback Method |
| cpg           | 463.83 | J/molxK | 634.24          | Joback Method |
| cpg           | 479.32 | J/molxK | 669.83          | Joback Method |
| cpg           | 493.81 | J/molxK | 705.41          | Joback Method |

|     |        |         |        |               |
|-----|--------|---------|--------|---------------|
| cpg | 507.36 | J/mol×K | 741.00 | Joback Method |
| cpg | 520.05 | J/mol×K | 776.58 | Joback Method |
| cpg | 531.91 | J/mol×K | 812.17 | 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=R45710&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R45710&amp;Units=SI</a> |
| <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>                                   |

## Legend

|                 |   |
|-----------------|---|
| <b>cpg:</b>     | Ideal gas heat capacity                         |
| <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>ripol:</b>   | 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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