

# Cyclopentane, 4-pentenylidene

|                      |                                                            |
|----------------------|------------------------------------------------------------|
| Inchi:               | InChI=1S/C10H16/c1-2-3-4-7-10-8-5-6-9-10/h2,7H,1,3-6,8-9H2 |
| InchiKey:            | UYISGPPEYKFIKW-UHFFFAOYSA-N                                |
| Formula:             | C10H16                                                     |
| SMILES:              | C=CCCC=C1CCCC1                                             |
| Mol. weight [g/mol]: | 136.23                                                     |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | 210.88  | kJ/mol  | Joback Method  |
| hf            | 32.55   | kJ/mol  | Joback Method  |
| hfus          | 13.56   | kJ/mol  | Joback Method  |
| hvap          | 38.54   | kJ/mol  | Joback Method  |
| log10ws       | -3.61   |         | Crippen Method |
| logp          | 3.453   |         | Crippen Method |
| mcvol         | 132.300 | ml/mol  | McGowan Method |
| pc            | 2787.66 | kPa     | Joback Method  |
| rinpol        | 1028.00 |         | NIST Webbook   |
| rinpol        | 1028.00 |         | NIST Webbook   |
| tb            | 451.47  | K       | Joback Method  |
| tc            | 652.43  | K       | Joback Method  |
| tf            | 226.20  | K       | Joback Method  |
| vc            | 0.501   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 269.80    | J/mol×K | 451.47          | Joback Method |
| cpg           | 343.33    | J/mol×K | 618.93          | Joback Method |
| cpg           | 330.30    | J/mol×K | 585.44          | Joback Method |
| cpg           | 316.47    | J/mol×K | 551.95          | Joback Method |
| cpg           | 301.81    | J/mol×K | 518.46          | Joback Method |
| cpg           | 286.27    | J/mol×K | 484.96          | Joback Method |
| cpg           | 355.61    | J/mol×K | 652.43          | Joback Method |
| dvisc         | 0.0002601 | Pa×s    | 451.47          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0003334 | Pa×s | 413.92 | Joback Method |
| dvisc | 0.0004489 | Pa×s | 376.38 | Joback Method |
| dvisc | 0.0006456 | Pa×s | 338.84 | Joback Method |
| dvisc | 0.0010165 | Pa×s | 301.29 | Joback Method |
| dvisc | 0.0018214 | Pa×s | 263.75 | Joback Method |
| dvisc | 0.0039610 | Pa×s | 226.20 | Joback Method |

## Sources

|                        |                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=R10749&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R10749&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>                       |
| <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>                   |

## 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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