

# 5-Butyl-5-ethyl-nonadecane

|                      |  |
|----------------------|--|
| Inchi:               | InChI=1S/C25H52/c1-5-9-12-13-14-15-16-17-18-19-20-21-24-25(8-4,22-10-6-2)23-11-7-3 |
| InchiKey:            | HUACUOQTEDQLMS-UHFFFAOYSA-N  |
| Formula:             | C25H52   |
| SMILES:              | CCCCCCCCCCCCCCC(CC)(CCCC)CCCC  |
| Mol. weight [g/mol]: | 352.68   |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | 162.46  | kJ/mol  | Joback Method  |
| hf            | -568.08 | kJ/mol  | Joback Method  |
| hfus          | 53.09   | kJ/mol  | Joback Method  |
| hvap          | 69.95   | kJ/mol  | Joback Method  |
| log10ws       | -10.05  |         | Crippen Method |
| logp          | 9.854   |         | Crippen Method |
| mcvol         | 363.110 | ml/mol  | McGowan Method |
| pc            | 772.03  | kPa     | Joback Method  |
| rinpol        | 2343.00 |         | NIST Webbook   |
| rinpol        | 2343.00 |         | NIST Webbook   |
| tb            | 768.17  | K       | Joback Method  |
| tc            | 942.43  | K       | Joback Method  |
| tf            | 373.93  | K       | Joback Method  |
| vc            | 1.425   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 1152.23   | J/molxK | 768.17          | Joback Method |
| cpg           | 1258.30   | J/molxK | 913.39          | Joback Method |
| cpg           | 1239.07   | J/molxK | 884.35          | Joback Method |
| cpg           | 1218.90   | J/molxK | 855.30          | Joback Method |
| cpg           | 1197.74   | J/molxK | 826.26          | Joback Method |
| cpg           | 1175.54   | J/molxK | 797.21          | Joback Method |
| cpg           | 1276.64   | J/molxK | 942.43          | Joback Method |
| dvisc         | 0.0000409 | Paxs    | 768.17          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0000583 | Paxs | 702.46 | Joback Method |
| dvisc | 0.0000893 | Paxs | 636.76 | Joback Method |
| dvisc | 0.0001510 | Paxs | 571.05 | Joback Method |
| dvisc | 0.0002925 | Paxs | 505.34 | Joback Method |
| dvisc | 0.0006908 | Paxs | 439.64 | Joback Method |
| dvisc | 0.0022059 | Paxs | 373.93 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <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.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.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=R415577&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R415577&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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