

# 3,7,11,15,18-Pentamethyldotriacontane

|                      |   |
|----------------------|---|
| Inchi:               | InChI=1S/C37H76/c1-8-10-11-12-13-14-15-16-17-18-19-20-24-36(6)31-32-37(7)30-23-29 |
| InchiKey:            | LDZWIRTOYMWNZ-UHFFFAOYSA-N  |
| Formula:             | C37H76  |
| SMILES:              | CCCCCCCCCCCCCCC(C)CCC(C)CCCC(C)CCCC(C)CCCC(C)CC                                   |
| Mol. weight [g/mol]: | 521.00  |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | 248.46  | kJ/mol  | Joback Method  |
| hf            | -833.41 | kJ/mol  | Joback Method  |
| hfus          | 73.97   | kJ/mol  | Joback Method  |
| hvap          | 96.02   | kJ/mol  | Joback Method  |
| log10ws       | -14.10  |         | Crippen Method |
| logp          | 13.959  |         | Crippen Method |
| mcvol         | 532.190 | ml/mol  | McGowan Method |
| pc            | 446.97  | kPa     | Joback Method  |
| rinpol        | 3400.00 |         | NIST Webbook   |
| tb            | 1043.76 | K       | Joback Method  |
| tc            | 1325.13 | K       | Joback Method  |
| tf            | 431.75  | K       | Joback Method  |
| vc            | 2.078   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 1965.34   | J/molxK | 1043.76         | Joback Method |
| cpg           | 2111.59   | J/molxK | 1278.23         | Joback Method |
| cpg           | 2086.65   | J/molxK | 1231.34         | Joback Method |
| cpg           | 2059.81   | J/molxK | 1184.44         | Joback Method |
| cpg           | 2030.82   | J/molxK | 1137.55         | Joback Method |
| cpg           | 1999.42   | J/molxK | 1090.65         | Joback Method |
| cpg           | 2134.92   | J/molxK | 1325.13         | Joback Method |
| dvisc         | 0.0000050 | Paxs    | 1043.76         | Joback Method |
| dvisc         | 0.0000076 | Paxs    | 941.76          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0000127 | Paxs | 839.76 | Joback Method |
| dvisc | 0.0000244 | Paxs | 737.75 | Joback Method |
| dvisc | 0.0000581 | Paxs | 635.75 | Joback Method |
| dvisc | 0.0001924 | Paxs | 533.75 | Joback Method |
| dvisc | 0.0011217 | Paxs | 431.75 | 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=R501183&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R501183&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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