

# 1,8-Pentadecadiene

|                      |                                                                                   |
|----------------------|-----------------------------------------------------------------------------------|
| Inchi:               | InChI=1S/C15H28/c1-3-5-7-9-11-13-15-14-12-10-8-6-4-2/h3,14-15H,1,4-13H2,2H3/b15-1 |
| InchiKey:            | PQWPWUNWPDVJAA-CCEZHUSRSA-N                                                       |
| Formula:             | C15H28                                                                            |
| SMILES:              | C=CCCCCCC=CCCCCCC                                                                 |
| Mol. weight [g/mol]: | 208.38                                                                            |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | 243.48  | kJ/mol  | Joback Method  |
| hf            | -110.28 | kJ/mol  | Joback Method  |
| hfus          | 33.53   | kJ/mol  | Joback Method  |
| hvap          | 48.27   | kJ/mol  | Joback Method  |
| log10ws       | -5.81   |         | Crippen Method |
| logp          | 5.649   |         | Crippen Method |
| mcvol         | 213.610 | ml/mol  | McGowan Method |
| pc            | 1521.12 | kPa     | Joback Method  |
| rinpol        | 1488.00 |         | NIST Webbook   |
| tb            | 543.44  | K       | Joback Method  |
| tc            | 711.14  | K       | Joback Method  |
| tf            | 251.97  | K       | Joback Method  |
| vc            | 0.837   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 520.34    | J/mol×K | 543.44          | Joback Method |
| cpg           | 538.31    | J/mol×K | 571.39          | Joback Method |
| cpg           | 555.50    | J/mol×K | 599.34          | Joback Method |
| cpg           | 571.94    | J/mol×K | 627.29          | Joback Method |
| cpg           | 587.66    | J/mol×K | 655.24          | Joback Method |
| cpg           | 602.69    | J/mol×K | 683.19          | Joback Method |
| cpg           | 617.05    | J/mol×K | 711.14          | Joback Method |
| dvisc         | 0.0047386 | Pa×s    | 251.97          | Joback Method |
| dvisc         | 0.0016613 | Pa×s    | 300.55          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0007797 | Pa×s | 349.13 | Joback Method |
| dvisc | 0.0004402 | Pa×s | 397.71 | Joback Method |
| dvisc | 0.0002815 | Pa×s | 446.28 | Joback Method |
| dvisc | 0.0001965 | Pa×s | 494.86 | Joback Method |
| dvisc | 0.0001463 | Pa×s | 543.44 | 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=R408930&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R408930&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>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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