

# (1aR,4S,7R,7aS,7bR)-1,1,4,7-Tetramethyl-1a,2,3,4,

|                             |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|
| <b>Inchi:</b>               | InChI=1S/C15H24O/c1-9-5-6-10-12(9)13-11(14(13,2)3)7-8-15(10,4)16/h6,9,11-13,16H,5 |
| <b>InchiKey:</b>            | RMMXVRYYNCFLLS-UHFFFAOYSA-N                                                       |
| <b>Formula:</b>             | C15H24O                                                                           |
| <b>SMILES:</b>              | CC1CC=C2C1C1C(CCC2(C)O)C1(C)C                                                     |
| <b>Mol. weight [g/mol]:</b> | 220.35                                                                            |
| <b>CAS:</b>                 | 63181-42-0                                                                        |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | 82.87   | kJ/mol               | Joback Method  |
| hf            | -283.31 | kJ/mol               | Joback Method  |
| hfus          | 20.35   | kJ/mol               | Joback Method  |
| hvap          | 63.47   | kJ/mol               | Joback Method  |
| log10ws       | -3.81   |                      | Crippen Method |
| logp          | 3.386   |                      | Crippen Method |
| mcvol         | 191.200 | ml/mol               | McGowan Method |
| pc            | 2237.64 | kPa                  | Joback Method  |
| rinpol        | 1577.30 |                      | NIST Webbook   |
| rinpol        | 1577.30 |                      | NIST Webbook   |
| tb            | 654.15  | K                    | Joback Method  |
| tc            | 862.88  | K                    | Joback Method  |
| tf            | 414.77  | K                    | Joback Method  |
| vc            | 0.729   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 576.39 | J/mol×K | 654.15          | Joback Method |
| cpg           | 595.29 | J/mol×K | 688.94          | Joback Method |
| cpg           | 613.37 | J/mol×K | 723.73          | Joback Method |
| cpg           | 630.87 | J/mol×K | 758.52          | Joback Method |
| cpg           | 648.01 | J/mol×K | 793.31          | Joback Method |
| cpg           | 665.02 | J/mol×K | 828.10          | Joback Method |
| cpg           | 682.13 | J/mol×K | 862.88          | 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=C63181420&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C63181420&amp;Units=SI</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>rinpola:</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                                 |

Latest version available from:

<https://www.chemeo.com/cid/76-471-5/1aR-4S-7R-7aS-7bR-1-1-4-7-Tetramethyl-1a-2-3-4-6-7-7a-7b-octahydro-1H-c>

Generated by Cheméo on 2024-04-26 09:52:48.545249354 +0000 UTC m=+16414417.465826670.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.