

# 4,4,14-«alpha»-Trimethyl-5-«alpha»-cholest-9(11)-

**Inchi:** InChI=1S/C30H52O/c1-20(2)10-9-11-21(3)22-14-18-30(8)24-12-13-25-27(4,5)26(31)16-1  
**InchiKey:** XHMHQMBOUUDXGO-RLMNQULKSA-N  
**Formula:** C30H52O  
**SMILES:** CC(C)CCCC(C)C1CCC2(C)C3CCC4C(C)(CCC(O)C4(C)C)C3=CCC12C  
**Mol. weight [g/mol]:** 428.73

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | 210.05  | kJ/mol  | Joback Method  |
| hf            | -539.01 | kJ/mol  | Joback Method  |
| hfus          | 32.46   | kJ/mol  | Joback Method  |
| hvap          | 93.90   | kJ/mol  | Joback Method  |
| log10ws       | -9.01   |         | Crippen Method |
| logp          | 8.415   |         | Crippen Method |
| mcvol         | 391.690 | ml/mol  | McGowan Method |
| pc            | 931.78  | kPa     | Joback Method  |
| rinpol        | 3285.00 |         | NIST Webbook   |
| rinpol        | 3285.00 |         | NIST Webbook   |
| tb            | 1011.83 | K       | Joback Method  |
| tc            | 1242.27 | K       | Joback Method  |
| tf            | 604.76  | K       | Joback Method  |
| vc            | 1.484   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value   | Unit    | Temperature [K] | Source        |
|---------------|---------|---------|-----------------|---------------|
| cpg           | 1549.85 | J/mol×K | 1011.83         | Joback Method |
| cpg           | 1595.82 | J/mol×K | 1050.24         | Joback Method |
| cpg           | 1645.07 | J/mol×K | 1088.64         | Joback Method |
| cpg           | 1698.15 | J/mol×K | 1127.05         | Joback Method |
| cpg           | 1755.63 | J/mol×K | 1165.46         | Joback Method |
| cpg           | 1818.09 | J/mol×K | 1203.86         | Joback Method |
| cpg           | 1886.07 | J/mol×K | 1242.27         | 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=R214938&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R214938&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>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                                 |

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