

# 1H-Cycloprop[e]azulene, decahydro-1,1,4,7-tetramethyl-, [1aR-(1a«alpha»,4«beta»,4a«beta»,7«beta»,7a«be

Other names: Lerdane  
InChI: InChI=1S/C15H26/c1-9-6-8-12-14(15(12,3)4)13-10(2)5-7-11(9)13/n9-14H,5-8H2,1-4H3  
InchiKey: UIDUJXXQMGYOIN-UHFFFAOYSA-N  
Formula: C15H26  
SMILES: CC1CCC2C(C3C(C)CCC13)C2(C)C  
Mol. weight [g/mol]: 206.37  
CAS: 28580-43-0

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | 197.14  | kJ/mol  | Joback Method  |
| hf            | -212.97 | kJ/mol  | Joback Method  |
| hfus          | 22.80   | kJ/mol  | Joback Method  |
| hvap          | 46.68   | kJ/mol  | Joback Method  |
| log10ws       | -4.09   |         | Crippen Method |
| logp          | 4.351   |         | Crippen Method |
| mcvol         | 189.630 | ml/mol  | McGowan Method |
| pc            | 1882.17 | kPa     | Joback Method  |
| rinpol        | 1373.00 |         | NIST Webbook   |
| ripol         | 1958.00 |         | NIST Webbook   |
| tb            | 552.92  | K       | Joback Method  |
| tc            | 766.34  | K       | Joback Method  |
| tf            | 312.53  | K       | Joback Method  |
| vc            | 0.725   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 523.56 | J/mol×K | 552.92          | Joback Method |
| cpg           | 549.11 | J/mol×K | 588.49          | Joback Method |
| cpg           | 573.07 | J/mol×K | 624.06          | Joback Method |
| cpg           | 595.59 | J/mol×K | 659.63          | Joback Method |
| cpg           | 616.85 | J/mol×K | 695.20          | Joback Method |
| cpg           | 637.00 | J/mol×K | 730.77          | Joback Method |

## Sources

|                        |                                                                                                                                               |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C28580430&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C28580430&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>                             |
| <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>                         |

## 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>rinpol:</b>  | Non-polar retention indices                     |
| <b>ripol:</b>   | 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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