

# Cyclohexene, 1-methyl-4-(1-methylethyl)-, (R)-

|                             |   |
|-----------------------------|---|
| <b>Other names:</b>         | p-Menth-1-ene, (R)-(+)-<br>(+)-p-Menth-1-ene<br>(+)-Carvomenthene<br>(+)-1-p-Menthene<br>Cyclohexene, 1-methyl-4-(1-methylethyl)-, (+)-<br>(+)-p-Menthene<br>p-Menthene, (+)-<br>4-Isopropyl-1-methyl-1-cyclohexene, (R)-<br>(R)-Carvomenthene<br>Cyclohexane, 1-methyl-4-(1-methylethyl)-, didehydro deriv., (R)-<br>(R)-4-(isopropyl)-1-methylcyclohexene |
| <b>Inchi:</b>               | InChI=1S/C10H18/c1-8(2)10-6-4-9(3)5-7-10/h4,8,10H,5-7H2,1-3H3   |
| <b>InchiKey:</b>            | FAMJUFMHYAFYNU-UHFFFAOYSA-N   |
| <b>Formula:</b>             | C10H18  |
| <b>SMILES:</b>              | CC1=CCC(C(C)C)CC1   |
| <b>Mol. weight [g/mol]:</b> | 138.25  |
| <b>CAS:</b>                 | 1195-31-9   |

## Physical Properties

| Property code | Value         | Unit                 | Source         |
|---------------|---------------|----------------------|----------------|
| gf            | 75.66         | kJ/mol               | Joback Method  |
| hf            | -154.38       | kJ/mol               | Joback Method  |
| hfus          | 10.80         | kJ/mol               | Joback Method  |
| hvap          | 38.85         | kJ/mol               | Joback Method  |
| log10ws       | -3.27         |                      | Crippen Method |
| logp          | 3.389         |                      | Crippen Method |
| mcvol         | 136.600       | ml/mol               | McGowan Method |
| pc            | 2646.11       | kPa                  | Joback Method  |
| tb            | 449.20        | K                    | NIST Webbook   |
| tb            | 442.65 ± 1.50 | K                    | NIST Webbook   |
| tc            | 656.32        | K                    | Joback Method  |
| tf            | 208.12        | K                    | Joback Method  |
| vc            | 0.508         | m <sup>3</sup> /kmol | Joback Method  |

# Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 286.78    | J/molxK | 451.45          | Joback Method |
| cpg           | 369.91    | J/molxK | 622.17          | Joback Method |
| cpg           | 354.99    | J/molxK | 588.03          | Joback Method |
| cpg           | 339.23    | J/molxK | 553.88          | Joback Method |
| cpg           | 322.63    | J/molxK | 519.74          | Joback Method |
| cpg           | 305.15    | J/molxK | 485.59          | Joback Method |
| cpg           | 384.04    | J/molxK | 656.32          | Joback Method |
| dvisc         | 0.0002319 | Paxs    | 451.45          | Joback Method |
| dvisc         | 0.0003059 | Paxs    | 410.89          | Joback Method |
| dvisc         | 0.0004288 | Paxs    | 370.34          | Joback Method |
| dvisc         | 0.0006532 | Paxs    | 329.78          | Joback Method |
| dvisc         | 0.0011194 | Paxs    | 289.23          | Joback Method |
| dvisc         | 0.0022871 | Paxs    | 248.67          | Joback Method |
| dvisc         | 0.0061732 | Paxs    | 208.12          | 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=C1195319&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C1195319&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>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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