

# cis-2-Methyl-3-ethylcyclohexanone

|                      |                                                                        |
|----------------------|------------------------------------------------------------------------|
| Inchi:               | InChI=1S/C9H16O/c1-3-8-5-4-6-9(10)7(8)2/h7-8H,3-6H2,1-2H3/t7-,8-/m0/s1 |
| InchiKey:            | CZXZZEIHDIVIEH-YUMQZZPRSA-N                                            |
| Formula:             | C9H16O                                                                 |
| SMILES:              | CCC1CCCC(=O)C1C                                                        |
| Mol. weight [g/mol]: | 140.22                                                                 |
| CAS:                 | 78707-79-6                                                             |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -80.95  | kJ/mol  | Joback Method  |
| hf            | -332.81 | kJ/mol  | Joback Method  |
| hfus          | 11.48   | kJ/mol  | Joback Method  |
| hvap          | 40.00   | kJ/mol  | Joback Method  |
| log10ws       | -2.28   |         | Crippen Method |
| logp          | 2.402   |         | Crippen Method |
| mcvol         | 128.380 | ml/mol  | McGowan Method |
| pc            | 2844.44 | kPa     | Joback Method  |
| tb            | 488.02  | K       | Joback Method  |
| tc            | 704.74  | K       | Joback Method  |
| tf            | 262.55  | K       | Joback Method  |
| vc            | 0.478   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 292.05 | J/mol×K | 488.02          | Joback Method |
| cpg           | 310.41 | J/mol×K | 524.14          | Joback Method |
| cpg           | 327.98 | J/mol×K | 560.26          | Joback Method |
| cpg           | 344.74 | J/mol×K | 596.38          | Joback Method |
| cpg           | 360.70 | J/mol×K | 632.50          | Joback Method |
| cpg           | 375.83 | J/mol×K | 668.62          | Joback Method |
| cpg           | 390.13 | J/mol×K | 704.74          | Joback Method |

# Sources

|                        |                                                                                                                                               |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C78707796&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C78707796&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>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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