

# Cyclohexanone, 2,4-bis(1,1-dimethylethyl)-, cis-

|                      |                                                                                  |
|----------------------|----------------------------------------------------------------------------------|
| Inchi:               | InChI=1S/C14H26O/c1-13(2,3)10-7-8-12(15)11(9-10)14(4,5)6/h10-11H,7-9H2,1-6H3/t10 |
| InchiKey:            | NYOHMJCUHOBGBN-QWRGUYRKSA-N                                                      |
| Formula:             | C14H26O                                                                          |
| SMILES:              | CC(C)(C)C1CCC(=O)C(C(C)(C)C)C1                                                   |
| Mol. weight [g/mol]: | 210.36                                                                           |
| CAS:                 | 52743-56-3                                                                       |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -33.17  | kJ/mol  | Joback Method  |
| hf            | -453.51 | kJ/mol  | Joback Method  |
| hfus          | 9.60    | kJ/mol  | Joback Method  |
| hvap          | 48.53   | kJ/mol  | Joback Method  |
| log10ws       | -3.89   |         | Crippen Method |
| logp          | 4.064   |         | Crippen Method |
| mcvol         | 198.830 | ml/mol  | McGowan Method |
| pc            | 1862.72 | kPa     | Joback Method  |
| tb            | 595.96  | K       | Joback Method  |
| tc            | 821.13  | K       | Joback Method  |
| tf            | 323.74  | K       | Joback Method  |
| vc            | 0.737   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 548.53 | J/mol×K | 595.96          | Joback Method |
| cpg           | 572.61 | J/mol×K | 633.49          | Joback Method |
| cpg           | 595.17 | J/mol×K | 671.02          | Joback Method |
| cpg           | 616.24 | J/mol×K | 708.54          | Joback Method |
| cpg           | 635.89 | J/mol×K | 746.07          | Joback Method |
| cpg           | 654.16 | J/mol×K | 783.60          | Joback Method |
| cpg           | 671.11 | J/mol×K | 821.13          | 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=C52743563&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C52743563&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>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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