# Cyclohexane, 1,1'-(1-methylpropylidene)bis-

**Other names:** Cyclohexane, 1,1'-(1-methylpropylidene)bis-
**Inchi:** InChI=1S/C16H30/c1-3-16(2,14-10-6-4-7-11-14)15-12-8-5-9-13-15/h14-15H,3-13H2,1-2H
**InchiKey:** AXABZNLJYTXFRF-UHFFFAOYSA-N
**Formula:** C16H30
**SMILES:** CCC(C)(C1CCCCC1)C1CCCCC1
**Mol. weight [g/mol]:** 222.42

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| af | 0.3734 | | Cheméo Relay (1.0) |
| chl | -10240.00 | kJ/mol | NIST Webbook |
| gf | 135.58 | kJ/mol | Joback Method |
| hf | -247.00 | kJ/mol | Cheméo Relay (1.0) |
| hfus | 13.45 | kJ/mol | Joback Method |
| hvap | 68.29 | kJ/mol | Cheméo Relay (1.0) |
| ie | 8.99 | eV | Cheméo Relay (1.0) |
| logp | 5.563 | | Crippen Method |
| mcvol | 214.580 | ml/mol | McGowan Method |
| pc | 1849.92 | kPa | Joback Method |
| tb | 575.30 ± 0.60 | K | NIST Webbook |
| tb | 575.30 ± 0.60 | K | NIST Webbook |
| tc | 783.54 | K | Cheméo Relay (1.0) |
| tf | 288.53 ± 0.10 | K | NIST Webbook |
| tf | 288.53 ± 0.10 | K | NIST Webbook |
| vc | 0.743 | m3/kmol | Cheméo Relay (1.0) |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 603.44 | J/mol×K | 601.35 | Joback Method |
| cpg | 631.74 | J/mol×K | 639.52 | Joback Method |
| cpg | 658.11 | J/mol×K | 677.69 | Joback Method |
| cpg | 682.64 | J/mol×K | 715.85 | Joback Method |
| cpg | 705.42 | J/mol×K | 754.02 | Joback Method |

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|---|---|---|---|---|
| cpg | 726.54 | J/mol×K | 792.19 | Joback Method |
| cpg | 746.10 | J/mol×K | 830.36 | Joback Method |
| dvisc | 0.0102795 | Pa×s | 287.26 | Joback Method |
| dvisc | 0.0029824 | Pa×s | 339.61 | Joback Method |
| dvisc | 0.0012042 | Pa×s | 391.96 | Joback Method |
| dvisc | 0.0006021 | Pa×s | 444.31 | Joback Method |
| dvisc | 0.0003484 | Pa×s | 496.65 | Joback Method |
| dvisc | 0.0002238 | Pa×s | 549.00 | Joback Method |
| dvisc | 0.0001552 | Pa×s | 601.35 | Joback Method |

# Sources

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772
**Crippen Method:** http://pubs.acs.org/doi/abs/10.1021/ci990307l
**Crippen Method:** https://www.chemeo.com/doc/models/crippen_log10ws
**Cheméo Relay (1.0):**
**Cheméo Relay (1.0, beta):**
**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C54890027&Units=SI
**Joback Method:** https://en.wikipedia.org/wiki/Joback_method

# Legend

**af:** Acentric Factor
**chl:** Standard liquid enthalpy of combustion
**cpg:** Ideal gas heat capacity
**dvisc:** Dynamic viscosity
**gf:** Standard Gibbs free energy of formation
**hf:** Enthalpy of formation at standard conditions
**hfus:** Enthalpy of fusion at standard conditions
**hvap:** Enthalpy of vaporization at standard conditions
**ie:** Ionization energy
**logp:** Octanol/Water partition coefficient
**mcvol:** McGowan's characteristic volume
**pc:** Critical Pressure
**tb:** Normal Boiling Point Temperature
**tc:** Critical Temperature
**tf:** Normal melting (fusion) point
**vc:** Critical Volume