# trans-1,1,4,4-Tetramethylcyclododec-8-ene

**Inchi:** InChI=1S/C16H30/c1-15(2)11-9-7-5-6-8-10-12-16(3,4)14-13-15/h5-6H,7-14H2,1-4H3/b6-
**InchiKey:** FKGCSZKVSMEKRA-AATRIKPKSA-N
**Formula:** C16H30
**SMILES:** CC1(C)CCCC=CCCCC(C)(C)CC1
**Mol. weight [g/mol]:** 222.41
**CAS:** 15811-94-6

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 46.96 | kJ/mol | Joback Method |
| hf | -288.29 | kJ/mol | Joback Method |
| hfus | 6.13 | kJ/mol | Joback Method |
| hvap | 50.35 | kJ/mol | Joback Method |
| log10ws | -5.78 | | Crippen Method |
| logp | 5.729 | | Crippen Method |
| mcvol | 221.140 | ml/mol | McGowan Method |
| pc | 1880.53 | kPa | Joback Method |
| tb | 605.62 | K | Joback Method |
| tc | 848.72 | K | Joback Method |
| tf | 300.66 | K | Joback Method |
| vc | 0.797 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 596.63 | J/mol×K | 605.62 | Joback Method |
| cpg | 625.50 | J/mol×K | 646.14 | Joback Method |
| cpg | 652.66 | J/mol×K | 686.65 | Joback Method |
| cpg | 678.34 | J/mol×K | 727.17 | Joback Method |
| cpg | 702.79 | J/mol×K | 767.68 | Joback Method |
| cpg | 726.22 | J/mol×K | 808.20 | Joback Method |
| cpg | 748.88 | J/mol×K | 848.72 | Joback Method |

# Sources

| | |
|---|---|
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |
| **Joback Method:** | https://en.wikipedia.org/wiki/Joback_method |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C15811946&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# Legend

| | |
|---|---|
| **cpg:** | Ideal gas heat capacity |
| **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 |
| **log10ws:** | Log10 of Water solubility in mol/l |
| **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 |