# cis-3,cis-7-decadiene

**Inchi:** InChI=1S/C10H18/c1-3-5-7-9-10-8-6-4-2/h5-8H,3-4,9-10H2,1-2H3/b7-5-,8-6-
**InchiKey:** LCSLWNXVIDKVGD-SFECMWDFSA-N
**Formula:** C10H18
**SMILES:** CCC=CCCC=CCC
**Mol. weight [g/mol]:** 138.25

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 193.76 | kJ/mol | Joback Method |
| hf | -15.29 | kJ/mol | Joback Method |
| hfus | 22.06 | kJ/mol | Joback Method |
| hvap | 37.77 | kJ/mol | Joback Method |
| log10ws | -3.72 | | Crippen Method |
| logp | 3.699 | | Crippen Method |
| mcvol | 143.160 | ml/mol | McGowan Method |
| pc | 2324.78 | kPa | Joback Method |
| rinpol | 970.90 | | NIST Webbook |
| tb | 436.52 | K | Joback Method |
| tc | 614.98 | K | Joback Method |
| tf | 192.30 | K | Joback Method |
| vc | 0.555 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 285.06 | J/mol×K | 436.52 | Joback Method |
| cpg | 299.83 | J/mol×K | 466.26 | Joback Method |
| cpg | 313.89 | J/mol×K | 496.01 | Joback Method |
| cpg | 327.27 | J/mol×K | 525.75 | Joback Method |
| cpg | 340.00 | J/mol×K | 555.49 | Joback Method |
| cpg | 352.10 | J/mol×K | 585.24 | Joback Method |
| cpg | 363.62 | J/mol×K | 614.98 | Joback Method |
| dvisc | 0.0054554 | Pa×s | 192.30 | Joback Method |
| dvisc | 0.0018265 | Pa×s | 233.00 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0008467 | Pa×s | 273.71 | Joback Method |
| dvisc | 0.0004790 | Pa×s | 314.41 | Joback Method |
| dvisc | 0.0003088 | Pa×s | 355.11 | Joback Method |
| dvisc | 0.0002178 | Pa×s | 395.82 | Joback Method |
| dvisc | 0.0001640 | Pa×s | 436.52 | Joback Method |

# Sources

| | |
|---|---|
| **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=R249944&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |

# Legend

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|---|---|
| **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 |
| **log10ws:** | Log10 of Water solubility in mol/l |
| **logp:** | Octanol/Water partition coefficient |
| **mcvol:** | McGowan's characteristic volume |
| **pc:** | Critical Pressure |
| **rinpol:** | Non-polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |