# cis-1-Chloro-9-octadecene

| | |
|---|---|
| **Other names:** | 9-Octadecene, 1-chloro-, (9Z)- |
| | Oleyl Chloride |
| | 1-chloro-9-octadecene |
| **Inchi:** | InChI=1S/C18H35Cl/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19/h9-10H,2-8,11-1 |
| **InchiKey:** | IFABLCIRROMTAN-KTKRTIGZSA-N |
| **Formula:** | C18H35Cl |
| **SMILES:** | CCCCCCCCC=CCCCCCCCCCl |
| **Mol. weight [g/mol]:** | 286.92 |
| **CAS:** | 16507-61-2 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 168.97 | kJ/mol | Joback Method |
| hf | -313.37 | kJ/mol | Joback Method |
| hfus | 46.77 | kJ/mol | Joback Method |
| hvap | 60.00 | kJ/mol | Joback Method |
| log10ws | -7.36 | | Crippen Method |
| logp | 7.263 | | Crippen Method |
| mcvol | 272.420 | ml/mol | McGowan Method |
| pc | 1164.04 | kPa | Joback Method |
| ripol | 2241.00 | | NIST Webbook |
| ripol | 2241.00 | | NIST Webbook |
| tb | 652.83 | K | Joback Method |
| tc | 821.45 | K | Joback Method |
| tf | 317.46 | K | Joback Method |
| vc | 1.073 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 742.15 | J/mol×K | 652.83 | Joback Method |
| cpg | 828.77 | J/mol×K | 793.35 | Joback Method |
| cpg | 812.98 | J/mol×K | 765.25 | Joback Method |
| cpg | 796.46 | J/mol×K | 737.14 | Joback Method |

| | | | | |
|---|---|---|---|---|
| cpg | 779.17 | J/mol×K | 709.04 | Joback Method |
| cpg | 761.08 | J/mol×K | 680.93 | Joback Method |
| cpg | 843.86 | J/mol×K | 821.45 | Joback Method |
| dvisc | 0.0000964 | Pa×s | 652.83 | Joback Method |
| dvisc | 0.0001313 | Pa×s | 596.93 | Joback Method |
| dvisc | 0.0001905 | Pa×s | 541.04 | Joback Method |
| dvisc | 0.0003014 | Pa×s | 485.14 | Joback Method |
| dvisc | 0.0005371 | Pa×s | 429.25 | Joback Method |
| dvisc | 0.0011380 | Pa×s | 373.36 | Joback Method |
| dvisc | 0.0031411 | Pa×s | 317.46 | 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=C16507612&Units=SI
**Crippen Method:** http://pubs.acs.org/doi/abs/10.1021/ci990307l
**Crippen Method:** https://www.chemeo.com/doc/models/crippen_log10ws

# Legend

**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
**ripol:** Polar retention indices
**tb:** Normal Boiling Point Temperature
**tc:** Critical Temperature
**tf:** Normal melting (fusion) point
**vc:** Critical Volume

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