# 1-Propene, 3-chloro-1,1,3,3-tetrafluoro-

**Other names:** Propene, 3-chloro-1,1,3,3-tetrafluoro-
3-Chloro-1,1,3,3-tetrafluoro propene
**Inchi:** InChI=1S/C3HClF4/c4-3(7,8)1-2(5)6/h1H
**InchiKey:** AYXCWSNLDUYPCX-UHFFFAOYSA-N
**Formula:** C3HClF4
**SMILES:** FC(F)=CC(F)(F)Cl
**Mol. weight [g/mol]:** 148.49
**CAS:** 406-46-2

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -742.28 | kJ/mol | Joback Method |
| hf | -806.75 | kJ/mol | Joback Method |
| hfus | 11.52 | kJ/mol | Joback Method |
| hvap | 22.13 | kJ/mol | Joback Method |
| log10ws | -2.59 | | Crippen Method |
| logp | 2.598 | | Crippen Method |
| mcvol | 68.150 | ml/mol | McGowan Method |
| pc | 3686.49 | kPa | Joback Method |
| tb | 303.36 | K | Joback Method |
| tc | 459.81 | K | Joback Method |
| tf | 139.23 | K | Joback Method |
| vc | 0.294 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 107.73 | J/mol×K | 303.36 | Joback Method |
| cpg | 113.88 | J/mol×K | 329.43 | Joback Method |
| cpg | 119.61 | J/mol×K | 355.51 | Joback Method |
| cpg | 124.94 | J/mol×K | 381.58 | Joback Method |
| cpg | 129.89 | J/mol×K | 407.66 | Joback Method |
| cpg | 134.47 | J/mol×K | 433.73 | Joback Method |
| cpg | 138.71 | J/mol×K | 459.81 | 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=C406462&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 |