# 1,2-DICHLOROOCTANE

**Other names:** Octane, 1,2-dichloro
**Inchi:** InChI=1S/C8H16Cl2/c1-2-3-4-5-6-8(10)7-9/h8H,2-7H2,1H3
**InchiKey:** LYVLPCUIYWOEBI-UHFFFAOYSA-N
**Formula:** C8H16Cl2
**SMILES:** CCCCCCC(Cl)CCl
**Mol. weight [g/mol]:** 183.12
**CAS:** ---

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| af | 0.4602 | | Cheméo Relay (1.0) |
| gf | -9.82 | kJ/mol | Joback Method |
| hf | -263.75 | kJ/mol | Cheméo Relay (1.0) |
| hfus | 21.35 | kJ/mol | Joback Method |
| hvap | 55.14 | kJ/mol | Cheméo Relay (1.0) |
| ie | 10.26 | eV | Cheméo Relay (1.0) |
| log10ws | -4.66 | | Cheméo Relay (1.0) |
| logp | 3.803 | | Crippen Method |
| mcvol | 148.060 | ml/mol | McGowan Method |
| pc | 2374.90 | kPa | Joback Method |
| tb | 472.38 | K | Cheméo Relay (1.0) |
| tc | 676.18 | K | Cheméo Relay (1.0) |
| tf | 249.59 | K | Cheméo Relay (1.0) |
| vc | 0.549 | m3/kmol | Cheméo Relay (1.0) |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 292.21 | J/mol×K | 456.86 | Joback Method |
| cpg | 360.51 | J/mol×K | 638.13 | Joback Method |
| cpg | 350.41 | J/mol×K | 607.92 | Joback Method |
| cpg | 339.83 | J/mol×K | 577.71 | Joback Method |
| cpg | 328.73 | J/mol×K | 547.49 | Joback Method |
| cpg | 317.11 | J/mol×K | 517.28 | Joback Method |

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|---|---|---|---|---|
| cpg | 304.94 | J/mol×K | 487.07 | Joback Method |
| dvisc | 0.0008182 | Pa×s | 340.81 | Joback Method |
| dvisc | 0.0002789 | Pa×s | 456.86 | Joback Method |
| dvisc | 0.0003736 | Pa×s | 418.18 | Joback Method |
| dvisc | 0.0005312 | Pa×s | 379.49 | Joback Method |
| dvisc | 0.0072961 | Pa×s | 224.76 | Joback Method |
| dvisc | 0.0014077 | Pa×s | 302.13 | Joback Method |
| dvisc | 0.0028401 | Pa×s | 263.44 | Joback Method |

# Correlations

| Information | Value |
|---|---|
| Property code | pvap |
| Equation | ln(Pvp) = A + B/(T + C) |
| Coeff. A | 1.43762e+01 |
| Coeff. B | -4.09318e+03 |
| Coeff. C | -7.51880e+01 |
| Temperature range (K), min. | 365.72 |
| Temperature range (K), max. | 526.74 |

# Sources

**Cheméo Relay (1.0):**

**Cheméo Relay (1.0, beta):**

**The Yaws Handbook of Vapor Pressure:** https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C21948469&Units=SI

**Joback Method:** https://en.wikipedia.org/wiki/Joback_method

**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

# Legend

**af:** Acentric Factor

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