# Naphthalene, 1,2,3,6,7-pentachloro

**Other names:** 1,2,3,6,7-pentachloronaphthalene
naphthalene, 1,2,3,6,7-pentachloro-
**Inchi:** InChI=1S/C10H3Cl5/c11-6-1-4-2-8(13)10(15)9(14)5(4)3-7(6)12/h1-3H
**InchiKey:** MKCASBPTHPJCDC-UHFFFAOYSA-N
**Formula:** C10H3Cl5
**SMILES:** Clc1cc2cc(Cl)c(Cl)c(Cl)c2cc1Cl
**Mol. weight [g/mol]:** 300.40

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 144.58 | kJ/mol | Joback Method |
| hf | 41.82 | kJ/mol | Joback Method |
| hfus | 22.94 | kJ/mol | Evaluation of entropies of fusion of polychlorinated naphthalenes by model congeners: A DSC study |
| hvap | 67.00 | kJ/mol | Joback Method |
| log10ws | -6.70 | | Crippen Method |
| logp | 6.107 | | Crippen Method |
| mcvol | 169.740 | ml/mol | McGowan Method |
| pc | 2884.30 | kPa | Joback Method |
| rinpol | 2217.00 | | NIST Webbook |
| rinpol | 2217.00 | | NIST Webbook |
| tb | 685.91 | K | Joback Method |
| tc | 947.92 | K | Joback Method |
| tf | 473.78 | K | Joback Method |
| vc | 0.654 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 310.73 | J/mol×K | 685.91 | Joback Method |
| cpg | 341.68 | J/mol×K | 904.25 | Joback Method |
| cpg | 336.44 | J/mol×K | 860.58 | Joback Method |
| cpg | 330.79 | J/mol×K | 816.91 | Joback Method |

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|---|---|---|---|---|
| cpg | 324.67 | J/mol×K | 773.25 | Joback Method |
| cpg | 318.01 | J/mol×K | 729.58 | Joback Method |
| cpg | 346.58 | J/mol×K | 947.92 | Joback Method |
| dvisc | 0.0003445 | Pa×s | 685.91 | Joback Method |
| dvisc | 0.0003907 | Pa×s | 650.56 | Joback Method |
| dvisc | 0.0004495 | Pa×s | 615.20 | Joback Method |
| dvisc | 0.0005262 | Pa×s | 579.85 | Joback Method |
| dvisc | 0.0006286 | Pa×s | 544.49 | Joback Method |
| dvisc | 0.0007697 | Pa×s | 509.14 | Joback Method |
| dvisc | 0.0009715 | Pa×s | 473.78 | Joback Method |

# Sources

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|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=R128520&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |
| **Evaluation of entropies of fusion of polychlorinated naphthalenes by model congeners: A DSC study:** | https://www.doi.org/10.1016/j.tca.2006.04.011 |
| **Joback Method:** | https://en.wikipedia.org/wiki/Joback_method |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |

# 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 |
| **rinpol:** | Non-polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |