# 9H-Carbazole, 9-methyl-

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|---|---|
| **Other names:** | 9-methyl-9H-carbazole |
| | 9-methylcarbazole |
| | N-Methyldibenzopyrrole |
| | N-methylcarbazole |
| | NSC 121195 |
| | carbazole, 9-methyl- |
| | carbazole, 9H-, 9-methyl- |
| **Inchi:** | InChI=1S/C13H11N/c1-14-12-8-4-2-6-10(12)11-7-3-5-9-13(11)14/h2-9H,1H3 |
| **InchiKey:** | SDFLTYHTFPTIGX-UHFFFAOYSA-N |
| **Formula:** | C13H11N |
| **SMILES:** | Cn1c2ccccc2c2ccccc21 |
| **Mol. weight [g/mol]:** | 181.23 |
| **CAS:** | 1484-12-4 |

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| chs | -6791.40 ± 1.70 | kJ/mol | NIST Webbook |
| chs | -6793.18 ± 0.84 | kJ/mol | NIST Webbook |
| hf | 201.00 | kJ/mol | NIST Webbook |
| hf | 199.20 ± 2.40 | kJ/mol | NIST Webbook |
| hf | 199.10 ± 0.50 | kJ/mol | NIST Webbook |
| hfs | 103.70 ± 2.40 | kJ/mol | NIST Webbook |
| hfs | 105.50 ± 1.00 | kJ/mol | NIST Webbook |
| hsub | 95.50 | kJ/mol | NIST Webbook |
| hsub | 95.50 | kJ/mol | NIST Webbook |
| hvap | 79.50 ± 3.20 | kJ/mol | NIST Webbook |
| ie | 7.50 ± 0.10 | eV | NIST Webbook |
| log10ws | -6.37 | | Crippen Method |
| logp | 3.332 | | Crippen Method |
| mcvol | 145.630 | ml/mol | McGowan Method |
| rinpol | 1750.20 | | NIST Webbook |
| rinpol | 1738.80 | | NIST Webbook |
| ripol | 2755.00 | | NIST Webbook |
| ripol | 2805.00 | | NIST Webbook |
| ss | 236.05 | J/mol×K | NIST Webbook |
| ss | 234.30 | J/mol×K | NIST Webbook |
| ss | 234.30 | J/mol×K | NIST Webbook |

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|---|---|---|---|
| ss | 234.30 | J/mol×K | NIST Webbook |
| tt | 362.48 ± 0.04 | K | NIST Webbook |
| tt | 362.49 ± 0.03 | K | NIST Webbook |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cps | 218.42 | J/mol×K | 298.15 | NIST Webbook |
| cps | 217.84 | J/mol×K | 298.15 | NIST Webbook |
| cps | 217.84 | J/mol×K | 298.15 | NIST Webbook |
| cps | 204.80 | J/mol×K | 298.15 | NIST Webbook |
| cps | 217.84 | J/mol×K | 298.15 | NIST Webbook |
| hfust | 17.15 | kJ/mol | 362.49 | NIST Webbook |
| hfust | 17.15 | kJ/mol | 362.49 | NIST Webbook |
| hfust | 17.15 | kJ/mol | 362.50 | NIST Webbook |
| hfust | 17.15 | kJ/mol | 362.50 | NIST Webbook |
| hsubt | 95.50 ± 0.30 | kJ/mol | 95.50 | NIST Webbook |
| hsubt | 95.00 | kJ/mol | 322.50 | NIST Webbook |
| hvapt | 65.00 | kJ/mol | 523.00 | NIST Webbook |
| hvapt | 67.70 | kJ/mol | 523.00 | NIST Webbook |
| hvapt | 74.90 | kJ/mol | 366.00 | NIST Webbook |
| hvapt | 55.90 | kJ/mol | 523.00 | NIST Webbook |
| hvapt | 59.10 | kJ/mol | 523.00 | NIST Webbook |
| hvapt | 62.10 | kJ/mol | 523.00 | NIST Webbook |
| hvapt | 70.50 | kJ/mol | 523.00 | NIST Webbook |
| hvapt | 73.40 | kJ/mol | 523.00 | NIST Webbook |
| hvapt | 79.40 | kJ/mol | 298.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Heterocycles and Related Compounds |
| sfust | 47.32 | J/mol×K | 362.49 | NIST Webbook |
| sfust | 47.32 | J/mol×K | 362.49 | NIST Webbook |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C1484124&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |
| **Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Heterocycles and Related Compounds:** | https://www.doi.org/10.1021/je900034d |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |

# Legend

| | |
|---|---|
| **chs:** | Standard solid enthalpy of combustion |
| **cps:** | Solid phase heat capacity |
| **hf:** | Enthalpy of formation at standard conditions |
| **hfs:** | Solid phase enthalpy of formation at standard conditions |
| **hfust:** | Enthalpy of fusion at a given temperature |
| **hsub:** | Enthalpy of sublimation at standard conditions |
| **hsubt:** | Enthalpy of sublimation at a given temperature |
| **hvap:** | Enthalpy of vaporization at standard conditions |
| **hvapt:** | Enthalpy of vaporization at a given temperature |
| **ie:** | Ionization energy |
| **log10ws:** | Log10 of Water solubility in mol/l |
| **logp:** | Octanol/Water partition coefficient |
| **mcvol:** | McGowan's characteristic volume |
| **rinpol:** | Non-polar retention indices |
| **ripol:** | Polar retention indices |
| **sfust:** | Entropy of fusion at a given temperature |
| **ss:** | Solid phase molar entropy at standard conditions |
| **tt:** | Triple Point Temperature |