

Dicyclopentadiene, 9,10-dihydro, exo

InChI: InChI=1S/C10H14/c1-2-9-7-4-5-8(6-7)10(9)3-1/h1-2,7-10H,3-6H2/t7?,8?,9-,10+/m1/s1

InChI Key: HANKSFAYJLDDKP-BMNUFHGDSA-N

Formula: C10H14

SMILES: C1=CC2C3CCC(C3)C2C1

Molecular Weight: 134.22



Physical Properties

| Property | Value | Unit | Source |
|---------------------------------|---------|------------------------|----------------|
| $\Delta_f G^\circ$ | 225.72 | kJ/mol | Joback Method |
| $\Delta_f H^\circ_{\text{gas}}$ | -0.05 | kJ/mol | Joback Method |
| $\Delta_{\text{fus}} H^\circ$ | 16.25 | kJ/mol | Joback Method |
| $\Delta_{\text{vap}} H^\circ$ | 37.75 | kJ/mol | Joback Method |
| $\log P_{\text{oct/wat}}$ | 2.61 | | Crippen Method |
| P_c | 3228.31 | kPa | Joback Method |
| T_{boil} | 447.18 | K | Joback Method |
| T_c | 663.03 | K | Joback Method |
| T_{fus} | 249.28 | K | Joback Method |
| V_c | 0.44 | m ³ /kg-mol | Joback Method |

Temperature Dependent Properties

| Property | Value | Unit | Temperature (K) | Source |
|--------------------|--------|---------|-----------------|---------------|
| $C_{p,\text{gas}}$ | 257.68 | J/mol×K | 447.18 | Joback Method |
| η | 0.00 | Paxs | 447.18 | Joback Method |

Sources

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

NIST Webbook: [http://webbook.nist.gov/cgi/inchi/InChI=1S/C10H14/c1-2-9-7-4-5-8\(6-7\)10\(9\)3-1/h1-2,7-10H,3-6H2/t7?,8?,9-,10+/m1/s1](http://webbook.nist.gov/cgi/inchi/InChI=1S/C10H14/c1-2-9-7-4-5-8(6-7)10(9)3-1/h1-2,7-10H,3-6H2/t7?,8?,9-,10+/m1/s1)

Crippen Method: <http://pubs.acs.org/doi/abs/10.1021/ci9903071>

Legend

$C_{p,gas}$: Ideal gas heat capacity (J/molxK).

η : Dynamic viscosity (Pa \times s).

$\Delta_f G^\circ$: Standard Gibbs free energy of formation (kJ/mol).

$\Delta_f H^\circ_{gas}$: Enthalpy of formation at standard conditions (kJ/mol).

$\Delta_{fus} H^\circ$: Enthalpy of fusion at standard conditions (kJ/mol).

$\Delta_{vap} H^\circ$: Enthalpy of vaporization at standard conditions (kJ/mol).

$logP_{oct/wat}$: Octanol/Water partition coefficient .

P_c : Critical Pressure (kPa).

T_{boil} : Normal Boiling Point Temperature (K).

T_c : Critical Temperature (K).

T_{fus} : Normal melting (fusion) point (K).

V_c : Critical Volume (m³/kg-mol).

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