

2,2-Dimethylpropanoic acid, 4-cyanophenyl ester

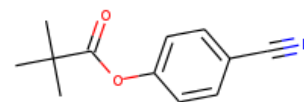
InChI: InChI=1S/C12H13NO2/c1-12(2,3)11(14)15-10-6-4-9(8-13)5-7-10/h
4-7H,1-3H3

InChI Key: KVCYRHCBMVONNS-UHFFFAOYSA-N

Formula: C12H13NO2

SMILES: CC(C)(C)C(=O)Oc1ccc(C#N)cc1

Molecular Weight: 203.24



Physical Properties

| Property | Value | Unit | Source |
|---------------------------------|---------|------------------------|----------------|
| $\Delta_f G^\circ$ | 55.04 | kJ/mol | Joback Method |
| $\Delta_f H^\circ_{\text{gas}}$ | -154.62 | kJ/mol | Joback Method |
| $\Delta_{\text{fus}} H^\circ$ | 17.37 | kJ/mol | Joback Method |
| $\Delta_{\text{vap}} H^\circ$ | 63.58 | kJ/mol | Joback Method |
| $\log P_{\text{oct/wat}}$ | 2.51 | | Crippen Method |
| P_c | 2465.36 | kPa | Joback Method |
| T_{boil} | 680.76 | K | Joback Method |
| T_c | 913.60 | K | Joback Method |
| T_{fus} | 403.51 | K | Joback Method |
| V_c | 0.64 | m ³ /kg-mol | Joback Method |

Temperature Dependent Properties

| Property | Value | Unit | Temperature (K) | Source |
|--------------------|--------|---------|-----------------|---------------|
| $C_{p,\text{gas}}$ | 423.63 | J/mol×K | 680.76 | Joback Method |

Sources

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

NIST Webbook: [http://webbook.nist.gov/cgi/inchi/InChI=1S/C12H13NO2/c1-12\(2,3\)11\(14\)15-10-6-4-9\(8-13\)5-7-10/h4-7H,1-3H3](http://webbook.nist.gov/cgi/inchi/InChI=1S/C12H13NO2/c1-12(2,3)11(14)15-10-6-4-9(8-13)5-7-10/h4-7H,1-3H3)

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

Legend

$C_{p, \text{gas}}$: Ideal gas heat capacity (J/mol×K).

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

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

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

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

$\log P_{\text{oct/wat}}$: 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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