

# Cinnamonitrile, 2-cyano, cis

|                      |                                                            |
|----------------------|------------------------------------------------------------|
| Inchi:               | InChI=1S/C10H6N2/c11-7-3-6-9-4-1-2-5-10(9)8-12/h1-6H/b6-3- |
| InchiKey:            | XICDCENQIKYMG-UTCJRWHEA-N                                  |
| Formula:             | C10H6N2                                                    |
| SMILES:              | N#CC=Cc1ccccc1C#N                                          |
| Mol. weight [g/mol]: | 154.17                                                     |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | 482.68  | kJ/mol  | Joback Method  |
| hf            | 422.31  | kJ/mol  | Joback Method  |
| hfus          | 18.52   | kJ/mol  | Joback Method  |
| hvap          | 61.71   | kJ/mol  | Joback Method  |
| log10ws       | -2.93   |         | Crippen Method |
| logp          | 2.095   |         | Crippen Method |
| mcvol         | 126.460 | ml/mol  | McGowan Method |
| pc            | 2890.51 | kPa     | Joback Method  |
| rinpol        | 1438.00 |         | NIST Webbook   |
| tb            | 668.18  | K       | Joback Method  |
| tc            | 916.41  | K       | Joback Method  |
| tf            | 366.30  | K       | Joback Method  |
| vc            | 0.519   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 281.81 | J/mol×K | 668.18          | Joback Method |
| cpg           | 290.57 | J/mol×K | 709.55          | Joback Method |
| cpg           | 298.63 | J/mol×K | 750.92          | Joback Method |
| cpg           | 306.07 | J/mol×K | 792.29          | Joback Method |
| cpg           | 312.93 | J/mol×K | 833.66          | Joback Method |
| cpg           | 319.29 | J/mol×K | 875.03          | Joback Method |
| cpg           | 325.21 | J/mol×K | 916.41          | Joback Method |

# Sources

|                        |                                                                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Joback Method:</b>  | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                     |
| <b>McGowan Method:</b> | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                     |
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=R503763&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R503763&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>                                 |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                         |

## Legend

|                 |                                                 |
|-----------------|-------------------------------------------------|
| <b>cpg:</b>     | Ideal gas heat capacity                         |
| <b>gf:</b>      | Standard Gibbs free energy of formation         |
| <b>hf:</b>      | Enthalpy of formation at standard conditions    |
| <b>hfus:</b>    | Enthalpy of fusion at standard conditions       |
| <b>hvap:</b>    | Enthalpy of vaporization at standard conditions |
| <b>log10ws:</b> | Log10 of Water solubility in mol/l              |
| <b>logp:</b>    | Octanol/Water partition coefficient             |
| <b>mcvol:</b>   | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |
| <b>rinpol:</b>  | Non-polar retention indices                     |
| <b>tb:</b>      | Normal Boiling Point Temperature                |
| <b>tc:</b>      | Critical Temperature                            |
| <b>tf:</b>      | Normal melting (fusion) point                   |
| <b>vc:</b>      | Critical Volume                                 |

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