

Cyclopropanecarbonitrile, 2-phenyl-, trans-

Other names:	2-Phenylcyclopropanecarbonitrile, trans- trans-Cyclopropanecarbonitrile, 2-phenyl
Inchi:	InChI=1S/C10H9N/c11-7-9-6-10(9)8-4-2-1-3-5-8/h1-5,9-10H,6H2/t9-,10-/m0/s1
InchiKey:	KUCVFITUDJTMFA-UWVGGRQHSA-N
Formula:	C10H9N
SMILES:	N#CC1CC1c1ccccc1
Mol. weight [g/mol]:	143.19
CAS:	5590-14-7

Physical Properties

Property code	Value	Unit	Source
gf	331.95	kJ/mol	Joback Method
hf	204.14	kJ/mol	Joback Method
hfus	16.41	kJ/mol	Joback Method
hvap	50.21	kJ/mol	Joback Method
log10ws	-2.59		Crippen Method
logp	2.314		Crippen Method
mvol	118.520	ml/mol	McGowan Method
pc	3173.97	kPa	Joback Method
rinpol	1351.00		NIST Webbook
rinpol	1351.00		NIST Webbook
tb	559.03	K	Joback Method
tc	799.73	K	Joback Method
tf	307.57	K	Joback Method
vc	0.469	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	275.25	J/mol×K	559.03	Joback Method
cpg	288.89	J/mol×K	599.15	Joback Method
cpg	301.47	J/mol×K	639.26	Joback Method
cpg	313.06	J/mol×K	679.38	Joback Method
cpg	323.75	J/mol×K	719.50	Joback Method

cpg	333.61	J/mol×K	759.62	Joback Method
cpg	342.71	J/mol×K	799.73	Joback Method

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C5590147&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

cpg:	Ideal gas heat capacity
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
rinpola:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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