

2,4'-Bipyridine

Other names:	2,4'-Bipyridyl 2,4'-Dipyridine 2,4'-dipyridyl 2,4-Bipyridyl
Inchi:	InChI=1S/C10H8N2/c1-2-6-12-10(3-1)9-4-7-11-8-5-9/h1-8H
InchiKey:	RMHQDKYZXJVCME-UHFFFAOYSA-N
Formula:	C10H8N2
SMILES:	<chem>c1ccc(-c2ccncc2)nc1</chem>
Mol. weight [g/mol]:	156.18
CAS:	581-47-5

Physical Properties

Property code	Value	Unit	Source
chs	-5274.70 ± 1.60	kJ/mol	NIST Webbook
hf	284.20 ± 2.70	kJ/mol	NIST Webbook
hfs	196.30 ± 2.10	kJ/mol	NIST Webbook
hfus	17.40	kJ/mol	Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Heterocycles and Related Compounds
hsub	87.90 ± 1.70	kJ/mol	NIST Webbook
hsub	87.90 ± 1.70	kJ/mol	NIST Webbook
hsub	87.90	kJ/mol	NIST Webbook
hvap	70.90 ± 1.60	kJ/mol	NIST Webbook
log10ws	-3.61		Crippen Method
logp	2.144		Crippen Method
mcvol	124.200	ml/mol	McGowan Method
rinpol	1574.00		NIST Webbook
ripol	2435.00		NIST Webbook
tb	554.20	K	NIST Webbook
tf	334.60	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hfust	17.40	kJ/mol	332.80	NIST Webbook

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	422.00 ± 1.00	K	1.50	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C581475&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

Legend

chs:	Standard solid enthalpy of combustion
hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hfust:	Enthalpy of fusion at a given temperature
hsub:	Enthalpy of sublimation 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
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature

tbrp: Boiling point at reduced pressure

tf: Normal melting (fusion) point

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