

9-Phenanthreneamine

Other names:	9-Aminophenanthrene 9-Phenanthrylamine phenanthren-9-amine
Inchi:	InChI=1S/C14H11N/c15-14-9-10-5-1-2-6-11(10)12-7-3-4-8-13(12)14/h1-9H,15H2
InchiKey:	KIHQWOBUIPWAN-UHFFFAOYSA-N
Formula:	C14H11N
SMILES:	<chem>Nc1cc2ccccc2c2ccccc12</chem>
Mol. weight [g/mol]:	193.24
CAS:	947-73-9

Physical Properties

Property code	Value	Unit	Source
gf	439.90	kJ/mol	Joback Method
hf	297.23	kJ/mol	Joback Method
hfus	24.51	kJ/mol	Joback Method
hvap	64.28	kJ/mol	Joback Method
ie	7.20 ± 0.10	eV	NIST Webbook
log10ws	-4.71		Crippen Method
logp	3.575		Crippen Method
mcvol	155.420	ml/mol	McGowan Method
pc	3403.91	kPa	Joback Method
rinpol	362.83		NIST Webbook
rinpol	362.83		NIST Webbook
tb	666.85	K	Joback Method
tc	927.60	K	Joback Method
tf	447.66	K	Joback Method
vc	0.585	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	389.28	J/mol×K	666.85	Joback Method
cpg	402.87	J/mol×K	710.31	Joback Method
cpg	415.31	J/mol×K	753.77	Joback Method

cpg	426.75	J/mol×K	797.22	Joback Method
cpg	437.35	J/mol×K	840.68	Joback Method
cpg	447.26	J/mol×K	884.14	Joback Method
cpg	456.62	J/mol×K	927.60	Joback Method

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
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=C947739&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

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
ie:	Ionization energy
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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