

Hydrazine, tetraphenyl-

Other names:	Tetraphenylhydrazine
Inchi:	InChI=1S/C24H20N2/c1-5-13-21(14-6-1)25(22-15-7-2-8-16-22)26(23-17-9-3-10-18-23)24
InchiKey:	KRMMZNOTUOIFQX-UHFFFAOYSA-N
Formula:	C24H20N2
SMILES:	c1ccc(N(c2ccccc2)N(c2ccccc2)c2ccccc2)cc1
Mol. weight [g/mol]:	336.43
CAS:	632-52-0

Physical Properties

Property code	Value	Unit	Source
chs	-12755.50 ± 2.80	kJ/mol	NIST Webbook
chs	-12752.70 ± 6.30	kJ/mol	NIST Webbook
chs	-12760.40 ± 2.50	kJ/mol	NIST Webbook
gf	822.40	kJ/mol	Joback Method
hf	542.49	kJ/mol	Joback Method
hfs	457.90 ± 2.60	kJ/mol	NIST Webbook
hfs	452.70	kJ/mol	NIST Webbook
hfus	40.12	kJ/mol	Joback Method
hvap	82.21	kJ/mol	Joback Method
log10ws	-6.68		Crippen Method
logp	6.578		Crippen Method
mcvol	273.940	ml/mol	McGowan Method
pc	2062.36	kPa	Joback Method
tb	880.12	K	Joback Method
tc	1150.41	K	Joback Method
tf	530.86	K	Joback Method
vc	0.984	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	818.01	J/mol×K	880.12	Joback Method
cpg	834.82	J/mol×K	925.17	Joback Method
cpg	850.10	J/mol×K	970.22	Joback Method

cpg	864.08	J/mol×K	1015.26	Joback Method
cpg	877.01	J/mol×K	1060.31	Joback Method
cpg	889.15	J/mol×K	1105.36	Joback Method
cpg	900.74	J/mol×K	1150.41	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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=C632520&Units=SI

Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase 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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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