Hydrazine, (4-methylphenyl)-

Other names:	Hydrazine, p-tolyl- p-Methylphenylhydrazine (4-Methylphenyl)hydrazine p-Tolylhydrazine 4-Hydrazinyltoluene 4-Tolyhydrazine
Inchi:	InChI=1S/C7H10N2/c1-6-2-4-7(9-8)5-3-6/h2-5,9H,8H2,1H3
InchiKey:	XAMBIJWZVIZZOG-UHFFFAOYSA-N
Formula:	C7H10N2
SMILES:	Cc1ccc(NN)cc1
Mol. weight [g/mol]:	122.17
CAS:	539-44-6

Physical Properties

Property code	Value	Unit	Source
gf	266.68	kJ/mol	Joback Method
hf	124.51	kJ/mol	Joback Method
hfus	17.83	kJ/mol	Joback Method
hvap	51.19	kJ/mol	Joback Method
log10ws	-1.96		Crippen Method
logp	1.281		Crippen Method
mcvol	105.690	ml/mol	McGowan Method
pc	4420.84	kPa	Joback Method
tb	513.92	K	Joback Method
tc	742.60	K	Joback Method
tf	343.51	K	Joback Method
vc	0.384	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	229.43	J/mol×K	513.92	Joback Method
cpg	241.19	J/mol×K	552.03	Joback Method
cpg	252.19	J/mol×K	590.15	Joback Method

cpg	262.49	J/mol×K	628.26	Joback Method
cpg	272.09	J/mol×K	666.37	Joback Method
cpg	281.05	J/mol×K	704.49	Joback Method
cpg	289.38	J/mol×K	742.60	Joback Method
hvapt	65.40	kJ/mol	435.00	NIST Webbook

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=C539446&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
hvapt:	Enthalpy of vaporization at a given temperature
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

Latest version available from:

https://www.chemeo.com/cid/81-140-6/Hydrazine-4-methylphenyl.pdf

Generated by Cheméo on 2024-10-12 09:06:05.640053268 +0000 UTC m=+3304828.277022516.

Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.