Propionitrile, 3-trimethylhydrazino-

Other names: 1,1-Dimethyl-2-(2-cyanoprop-2-yl)hydrazine
Inchi: InChI=1S/C6H13N3/c1-6(2,5-7)8-9(3)4/h8H,1-4H3
InchiKey: AJMSTEDXUWYXGY-UHFFFAOYSA-N
Formula: C6H13N3
SMILES: CN(C)NC(C)(C)C#N
Mol. weight [g/mol]: 127.19
CAS: 97812-31-2

Physical Properties

Property code	Value	Unit	Source
gf	335.83	kJ/mol	Joback Method
hf	109.96	kJ/mol	Joback Method
hfus	13.51	kJ/mol	Joback Method
hvap	46.61	kJ/mol	Joback Method
ie	9.00	eV	NIST Webbook
log10ws	-1.06		Crippen Method
logp	0.355		Crippen Method
mcvol	116.740	ml/mol	McGowan Method
pc	3124.49	kPa	Joback Method
tb	498.14	K	Joback Method
tc	699.42	K	Joback Method
tf	309.92	K	Joback Method
vc	0.440	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	265.24	J/mol×K	498.14	Joback Method
cpg	276.99	J/mol×K	531.69	Joback Method
cpg	288.00	J/mol×K	565.23	Joback Method
cpg	298.31	J/mol×K	598.78	Joback Method
cpg	307.96	J/mol×K	632.33	Joback Method
cpg	317.00	J/mol×K	665.87	Joback Method
cpg	325.45	J/mol×K	699.42	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=C97812312&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
ie:	Ionization energy
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