

# 1,2-Bis(2-cyano-2-propyl)-hydrazine

<b>Other names:</b>	Hydrazine, 1,2-bis(1-cyano-1-methylethyl)- Hydrazobisisobutyronitrile Hydrazodiisobutyronitrile Propanenitrile, 2,2'-hydrazobis(2-methyl- Propionitrile, 2,2'-hydrazobis(2-methyl- Alpha,alpha'-hydrazo-di-iso-butyronitrile 1,2-Bis-(2-cyanoprop-2-yl)hydrazine
<b>Inchi:</b>	InChI=1S/C8H14N4/c1-7(2,5-9)11-12-8(3,4)6-10/h11-12H,1-4H3
<b>InchiKey:</b>	HOSVESHQDSFAST-UHFFFAOYSA-N
<b>Formula:</b>	C8H14N4
<b>SMILES:</b>	CC(C)(C#N)NNC(C)(C)C#N
<b>Mol. weight [g/mol]:</b>	166.22
<b>CAS:</b>	6869-07-4

## Physical Properties

Property code	Value	Unit	Source
chs	-5268.30 ± 4.60	kJ/mol	NIST Webbook
gf	467.30	kJ/mol	Joback Method
hf	210.75	kJ/mol	Joback Method
hfs	119.30 ± 4.60	kJ/mol	NIST Webbook
hfus	14.86	kJ/mol	Joback Method
hvap	64.64	kJ/mol	Joback Method
log10ws	-2.50		Crippen Method
logp	0.685		Crippen Method
mcvol	146.300	ml/mol	McGowan Method
pc	2571.50	kPa	Joback Method
tb	680.48	K	Joback Method
tc	904.85	K	Joback Method
tf	420.06	K	Joback Method
vc	0.584	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
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cpg	392.76	J/mol×K	680.48	Joback Method
cpg	403.19	J/mol×K	717.88	Joback Method
cpg	412.83	J/mol×K	755.27	Joback Method
cpg	421.77	J/mol×K	792.67	Joback Method
cpg	430.06	J/mol×K	830.06	Joback Method
cpg	437.79	J/mol×K	867.46	Joback Method
cpg	445.02	J/mol×K	904.85	Joback Method

## Sources

<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C6869074&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C6869074&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>

## Legend

<b>chs:</b>	Standard solid enthalpy of combustion
<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfs:</b>	Solid phase enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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