

1,2-Hydrazinedicarboxamide

Other names:	Biurea Hydrazodicarbonamide Hydrazodiformamide N,N'-Dicarbamoylhydrazine Bicarbamamide Bicarbamimidic acid Formamide, 1,1'-hydrazobis- Formimidic acid, 1-semicarbazido- Hydrazine, 1,2-bis(aminocarbonyl)- Hydrazine, 1,2-dicarbamoyl- Hydrazinecarboximidic acid, 2-(aminocarbonyl)- Hydrazocarbonamide Hydrazodicarboxamide Pseudourea, 3-ureido- Semicarbazide, 1-(1-hydroxyformimidoyl)- Semicarbazide, 1-carbamoyl- Urea, ureido- Ureidourea Hydradicarbonamide Hydrazinedicarboxylic acid diamide N,N'-Biscarbamoylhydrazine NSC 1897 1,1-hydrazoformamide
Inchi:	InChI=1S/C2H6N4O2/c3-1(7)5-6-2(4)8/h(H3,3,5,7)(H3,4,6,8)
InchiKey:	ULUZGMIUTMRARO-UHFFFAOYSA-N
Formula:	C2H6N4O2
SMILES:	NC(=O)NNC(N)=O
Mol. weight [g/mol]:	118.09
CAS:	110-21-4

Physical Properties

Property code	Value	Unit	Source
chs	-1145.90 ± 1.20	kJ/mol	NIST Webbook
chs	-1146.60 ± 0.63	kJ/mol	NIST Webbook
chs	-1151.00	kJ/mol	NIST Webbook
gf	19.80	kJ/mol	Joback Method

hf	-135.25		kJ/mol	Joback Method
hfs	-498.70 ± 1.20		kJ/mol	NIST Webbook
hfus	24.73		kJ/mol	Joback Method
hvap	67.69		kJ/mol	Joback Method
log10ws	-0.40			Crippen Method
logp	-1.762			Crippen Method
mcvol	82.100		ml/mol	McGowan Method
pc	7640.96		kPa	Joback Method
tb	598.30		K	Joback Method
tc	822.45		K	Joback Method
tf	484.00		K	Joback Method
vc	0.287		m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	199.18	J/mol×K	598.30	Joback Method
cpg	205.57	J/mol×K	635.66	Joback Method
cpg	211.51	J/mol×K	673.02	Joback Method
cpg	217.02	J/mol×K	710.37	Joback Method
cpg	222.11	J/mol×K	747.73	Joback Method
cpg	226.78	J/mol×K	785.09	Joback Method
cpg	231.06	J/mol×K	822.45	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C110214&Units=SI
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

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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