

Hydrazinecarboxamide

Other names:	Semicarbazide Aminomocovina Aminourea Carbamic acid, hydrazide Carbamylhydrazine Carbazamide Hydrazine, carbamoyl- Semikarbazid Urea, amino-
Inchi:	InChI=1S/CH5N3O/c2-1(5)4-3/h3H2,(H3,2,4,5)
InchiKey:	DUIOPKIIICUYRZ-UHFFFAOYSA-N
Formula:	CH5N3O
SMILES:	NNC(N)=O
Mol. weight [g/mol]:	75.07
CAS:	57-56-7

Physical Properties

Property code	Value	Unit	Source
chs	-882.40 ± 0.66	kJ/mol	NIST Webbook
gf	50.91	kJ/mol	Joback Method
hf	-55.50	kJ/mol	Joback Method
hfs	-225.68 ± 0.60	kJ/mol	NIST Webbook
hfus	15.44	kJ/mol	Joback Method
hvap	52.28	kJ/mol	Joback Method
log10ws	-0.04		Crippen Method
logp	-1.472		Crippen Method
mcvol	56.460	ml/mol	McGowan Method
pc	7915.30	kPa	Joback Method
ss	119.60	J/mol×K	NIST Webbook
ss	119.60	J/mol×K	NIST Webbook
tb	471.38	K	Joback Method
tc	690.61	K	Joback Method
tf	370.14	K	Joback Method
vc	0.191	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	118.56	J/mol×K	471.38	Joback Method
cpg	123.82	J/mol×K	507.92	Joback Method
cpg	128.78	J/mol×K	544.46	Joback Method
cpg	133.46	J/mol×K	580.99	Joback Method
cpg	137.86	J/mol×K	617.53	Joback Method
cpg	141.98	J/mol×K	654.07	Joback Method
cpg	145.83	J/mol×K	690.61	Joback Method
cps	110.60	J/mol×K	298.15	NIST Webbook
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Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C57567&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
cps:	Solid phase 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
ss:	Solid phase molar entropy at standard conditions

tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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