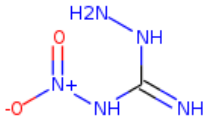
1-Amino-3-nitroguanidine

Other names: N-nitrocarbazamidine.
InChI: InChI=1S/CH5N5O2/c2-1(4-3)5-6(7)8/h3H2,(H3,2,4,5)
InChI Key: LWPLPMSGDZDOLW-UHFFFAOYSA-N
Formula: CH5N5O2
SMILES: N=C(NN)N[N+](=O)[O-]
Molecular Weight: 119.08
CAS: 18264-75-0



Physical Properties

Property	Value	Unit	Source
$\Delta_f G°$	441.92	kJ/mol	Joback Method
$\Delta_f H°_{gas}$	264.33	kJ/mol	Joback Method
$\Delta_{vap} H°$	70.00	kJ/mol	Joback Method
$logP_{oct/wat}$	-1.83		Crippen Method
T_{boil}	631.33	K	Joback Method
T_{fus}	484.65 ± 2.50	K	NIST Webbook

Temperature Dependent Properties

Property	Value	Unit	Temperature (K)	Source
$C_{p,gas}$	195.04	J/mol×K	631.33	Joback Method

Sources

Joback Method: https://en.wikipedia.org/wiki/Joback_method
NIST Webbook: http://webbook.nist.gov/cgi/inchi/InChI=1S/CH5N5O2/c2-1(4-3)5-6(7)8/h3H2,(H3,2,4,5)
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

$C_{p,gas}$: Ideal gas heat capacity (J/mol×K).
Δ_f**G°**: Standard Gibbs free energy of formation (kJ/mol).
Δ_f**H°$_{gas}$**: Enthalpy of formation at standard conditions (kJ/mol).
Δ_{vap}**H°**: Enthalpy of vaporization at standard conditions (kJ/mol).
***log*P$_{oct/wat}$**: Octanol/Water partition coefficient .
T_{boil}: Normal Boiling Point Temperature (K).
T_{fus}: Normal melting (fusion) point (K).