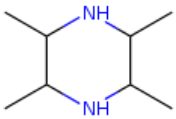
Piperazine, 2,3,5,6-tetramethyl-,

InChI: InChI=1S/C8H18N2/c1-5-6(2)10-8(4)7(3)9-5/h5-10H,1-4H3
InChI Key: ICGDKKACLISIAM-UHFFFAOYSA-N
Formula: C8H18N2
SMILES: CC1NC(C)C(C)NC1C
Molecular Weight: 142.24
CAS: 6135-46-2



Physical Properties

Property	Value	Unit	Source
$\Delta_f G°$	193.22	kJ/mol	Joback Method
$\Delta_f H°_{gas}$	-139.53	kJ/mol	Joback Method
$\Delta_{fus} H°$	30.70	kJ/mol	Joback Method
$\Delta_{vap} H°$	46.42	kJ/mol	Joback Method
$log P_{oct/wat}$	0.73		Crippen Method
P_c	2986.06	kPa	Joback Method
T_{boil}	485.08	K	Joback Method
T_c	699.57	K	Joback Method
T_{fus}	384.64	K	Joback Method
V_c	0.49	m^3/kg-mol	Joback Method

Temperature Dependent Properties

Property	Value	Unit	Temperature (K)	Source
$C_{p,gas}$	305.16	J/mol×K	485.08	Joback Method

Sources

Joback Method: https://en.wikipedia.org/wiki/Joback_method
NIST Webbook: http://webbook.nist.gov/cgi/inchi/InChI=1S/C8H18N2/c1-5-6(2)10-8(4)7(3)9-5/h5-10H,1-4H3
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

$\mathbf{C_{p,gas}}$: Ideal gas heat capacity (J/mol×K).
$\Delta_f\mathbf{G°}$: Standard Gibbs free energy of formation (kJ/mol).
$\Delta_f\mathbf{H°_{gas}}$: Enthalpy of formation at standard conditions (kJ/mol).
$\Delta_{fus}\mathbf{H°}$: Enthalpy of fusion at standard conditions (kJ/mol).
$\Delta_{vap}\mathbf{H°}$: Enthalpy of vaporization at standard conditions (kJ/mol).
$\boldsymbol{log}\mathbf{P_{oct/wat}}$: Octanol/Water partition coefficient .
$\mathbf{P_c}$: Critical Pressure (kPa).
$\mathbf{T_{boil}}$: Normal Boiling Point Temperature (K).
$\mathbf{T_c}$: Critical Temperature (K).
$\mathbf{T_{fus}}$: Normal melting (fusion) point (K).
$\mathbf{V_c}$: Critical Volume (m^3/kg-mol).