Benzenamine, N,N,3,5-tetramethyl-

Other names:	3,5-Xylidine, N,N-dimethyl-
	N,N-Dimethyl-sym-m-xylidine
	N,N,3,5-Tetramethylaniline
	N,N-3,5-Tetramethylbenzenamine
	N,N-dimethyl-3,5-xylidine
Inchi:	InChI=1S/C10H15N/c1-8-5-9(2)7-10(6-8)11(3)4/h5-7H,1-4H3
InchiKey:	NBFRQCOZERNGEX-UHFFFAOYSA-N
Formula:	C10H15N
SMILES:	Cc1cc(C)cc(N(C)C)c1
Mol. weight [g/mol]:	149.23
CAS:	4913-13-7

Physical Properties

Property code	Value	Unit	Source
affp	956.10	kJ/mol	NIST Webbook
basg	924.30	kJ/mol	NIST Webbook
gf	237.25	kJ/mol	Joback Method
hf	31.39	kJ/mol	Joback Method
hfus	17.94	kJ/mol	Joback Method
hvap	43.50	kJ/mol	Joback Method
ie	6.95	eV	NIST Webbook
ie	7.25	eV	NIST Webbook
log10ws	-2.33		Crippen Method
logp	2.369		Crippen Method
mcvol	137.980	ml/mol	McGowan Method
pc	2832.35	kPa	Joback Method
tb	500.20	K	NIST Webbook
tc	681.78	K	Joback Method
tf	286.39	K	Joback Method
vc	0.505	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	290.18	J/mol×K	477.28	Joback Method
cpg	305.33	J/mol×K	511.36	Joback Method
cpg	319.69	J/mol×K	545.45	Joback Method
cpg	333.27	J/mol×K	579.53	Joback Method
cpg	346.11	J/mol×K	613.61	Joback Method
cpg	358.24	J/mol×K	647.70	Joback Method
cpg	369.68	J/mol×K	681.78	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	409.00 ± 1.00	K	3.30	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C4913137&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

affp: Proton affinity
basg: Gas basicity
cpg: Ideal gas heat capacity
gf: Standard Gibbs free energy of formation
hf: Enthalpy of formation at standard conditions
hfus: Enthalpy of fusion at standard conditions
hvap: Enthalpy of vaporization at standard conditions
ie: Ionization energy
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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume