Benzenamine, 3,5-dimethyl-

Other names:	1-Amino-3,5-dimethylbenzene
	3,5-Dimethylaniline
	3,5-Dimethylbenzenamine
	3,5-Dimethylbenzeneamine
	3,5-Dimethylphenylamine
	3,5-Xylidene
	3,5-Xylidine
	3,5-Xylylamine
	5-Amino-1,3-dimethylbenzene
	5-Amino-1,3-xylene
	NSC 26880
Inchi:	InChI=1S/C8H11N/c1-6-3-7(2)5-8(9)4-6/h3-5H,9H2,1-2H3
InchiKey:	MKARNSWMMBGSHX-UHFFFAOYSA-N
Formula:	C8H11N
SMILES:	Cc1cc(C)cc(N)c1
Mol. weight [g/mol]:	121.18
CAS:	108-69-0

Physical Properties

Property code	Value	Unit	Source
gf	176.08	kJ/mol	Joback Method
hf	38.93	kJ/mol	Joback Method
hfus	14.94	kJ/mol	Joback Method
hvap	47.64	kJ/mol	Joback Method
ie	7.60 ± 0.10	eV	NIST Webbook
ie	7.75 ± 0.05	eV	NIST Webbook
ie	7.20	eV	NIST Webbook
log10ws	-2.06		Crippen Method
logp	1.886		Crippen Method
mcvol	109.800	ml/mol	McGowan Method
pc	3773.04	kPa	Joback Method
rinpol	1177.00		NIST Webbook
rinpol	198.01		NIST Webbook
rinpol	1140.00		NIST Webbook
tb	490.55 ± 0.40	K	NIST Webbook
tc	717.26	K	Joback Method
tf	283.00 ± 1.00	K	NIST Webbook

vc	0.405	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	228.80	J/mol×K	491.61	Joback Method
cpg	240.98	J/mol×K	529.22	Joback Method
cpg	252.48	J/mol×K	566.83	Joback Method
cpg	263.33	J/mol×K	604.43	Joback Method
cpg	273.54	J/mol×K	642.04	Joback Method
cpg	283.15	J/mol×K	679.65	Joback Method
cpg	292.16	J/mol×K	717.26	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	377.70	K	1.90	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.50847e+01
Coeff. B	-4.31389e+03
Coeff. C	-7.83850e+01
Temperature range (K), min.	369.92
Temperature range (K), max.	519.78

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C108690&Units=SI

The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
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

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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume