Benzenemethanamine, N-methyl-

Other names:	Benzeneamine, N-methyl
	Benzylamine, N-methyl-
	Benzylmethylamine
	Methylbenzylamine
	N-Benzyl-N-methylamine
	N-Benzylmethylamine
	N-Methy-N-benzylamine
	N-Methyl(phenyl)methanamine
	N-Methyl-N-(phenylmethyl)amine
	N-methyl-1-phenylmethanamine
	N-methylbenzylamine
	NSC 8059
Inchi:	InChI=1S/C8H11N/c1-9-7-8-5-3-2-4-6-8/h2-6,9H,7H2,1H3
InchiKey:	RIWRFSMVIUAEBX-UHFFFAOYSA-N
Formula:	C8H11N
SMILES:	CNCc1ccccc1
Mol. weight [g/mol]:	121.18
CAS:	103-67-3

Physical Properties

Property code	Value	Unit	Source
gf	218.28	kJ/mol	Joback Method
hf	81.55	kJ/mol	Joback Method
hfus	15.62	kJ/mol	Joback Method
hvap	42.11	kJ/mol	Joback Method
ie	8.65	eV	NIST Webbook
ie	8.73	eV	NIST Webbook
log10ws	-1.96		Crippen Method
logp	1.406		Crippen Method
mcvol	109.800	ml/mol	McGowan Method
pc	3708.97	kPa	Joback Method
rinpol	1026.00		NIST Webbook
rinpol	1078.00		NIST Webbook
rinpol	1026.00		NIST Webbook
tb	459.70	K	NIST Webbook
tb	453.70	K	NIST Webbook
tc	671.67	K	Joback Method

tf	259.00	K	Joback Method
vc	0.410	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	286.49	J/mol×K	671.67	Joback Method
cpg	276.83	J/mol×K	636.28	Joback Method
cpg	266.53	J/mol×K	600.88	Joback Method
cpg	255.53	J/mol×K	565.48	Joback Method
cpg	243.81	J/mol×K	530.08	Joback Method
cpg	231.34	J/mol×K	494.69	Joback Method
cpg	218.08	J/mol×K	459.29	Joback Method
rhol	851.00	kg/m3	398.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	917.60	kg/m3	323.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	913.30	kg/m3	328.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	908.90	kg/m3	333.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines

rhol	904.50	kg/m3	338.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	900.00	kg/m3	343.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	895.60	kg/m3	348.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	891.20	kg/m3	353.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	886.70	kg/m3	358.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	882.30	kg/m3	363.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	877.80	kg/m3	368.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines

rhol	873.40	kg/m3	373.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	868.90	kg/m3	378.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	864.40	kg/m3	383.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	860.00	kg/m3	388.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	855.40	kg/m3	393.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	922.00	kg/m3	318.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	846.40	kg/m3	403.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines

rhol	841.80	kg/m3	408.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	837.30	kg/m3	413.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	832.60	kg/m3	418.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	944.55	kg/m3	293.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	940.23	kg/m3	298.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	935.90	kg/m3	303.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	931.57	kg/m3	308.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines

rhol	927.24	kg/m3	313.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	922.90	kg/m3	318.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	918.55	kg/m3	323.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	914.19	kg/m3	328.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	909.83	kg/m3	333.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	905.50	kg/m3	338.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	901.19	kg/m3	343.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines

rhol	926.40	kg/m3	313.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	930.70	kg/m3	308.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	935.10	kg/m3	303.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	939.60	kg/m3	298.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	944.00	kg/m3	293.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	948.40	kg/m3	288.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhol	952.80	kg/m3	283.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	351.20	K	1.90	NIST Webbook

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C103673&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines:	https://www.doi.org/10.1021/acs.jced.6b00667
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
rhol:	Liquid Density
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