

# Benzylamine

Other names:	(Aminomethyl)benzene (Phenylmethyl)amine .alpha.-aminotoluene ALPHA-AMINOTOLUENE Benzenemethanamine MONOBENZYLAMINE N-Benzylamine NSC 8046 Sumine 2005 aminomethylbenzene benzene, aminomethyl- «alpha»-Aminotoluene «omega»-Aminotoluene Â«alphaÂ»-Aminotoluene Â«omegaÂ»-Aminotoluene
Inchi:	InChI=1S/C7H9N/c8-6-7-4-2-1-3-5-7/h1-5H,6,8H2
InchiKey:	WGQKYBSKWIADBV-UHFFFAOYSA-N
Formula:	C7H9N
SMILES:	NCc1ccccc1
Mol. weight [g/mol]:	107.15
CAS:	100-46-9

## Physical Properties

Property code	Value	Unit	Source
affp	913.30	kJ/mol	NIST Webbook
affp	924.00 ± 4.00	kJ/mol	NIST Webbook
affp	922.70 ± 7.80	kJ/mol	NIST Webbook
basg	879.40	kJ/mol	NIST Webbook
chl	-4058.00	kJ/mol	NIST Webbook
chl	-4075.00 ± 1.70	kJ/mol	NIST Webbook
ep	-3.00 ± 10.00	J/molxK	NIST Webbook
gf	186.92	kJ/mol	Joback Method
hf	87.80 ± 2.70	kJ/mol	NIST Webbook
hf	56.60	kJ/mol	NIST Webbook
hfl	34.20 ± 1.70	kJ/mol	NIST Webbook
hfl	3.00	kJ/mol	NIST Webbook
hfus	13.12	kJ/mol	Joback Method

hvap	54.60 ± 0.30	kJ/mol	NIST Webbook
hvap	60.16	kJ/mol	NIST Webbook
hvap	53.60	kJ/mol	NIST Webbook
hvap	54.00 ± 2.00	kJ/mol	NIST Webbook
ie	8.49 ± 0.06	eV	NIST Webbook
ie	9.46	eV	NIST Webbook
ie	8.64 ± 0.05	eV	NIST Webbook
ie	8.73	eV	NIST Webbook
ie	9.10 ± 0.01	eV	NIST Webbook
ie	8.80	eV	NIST Webbook
log10ws	-1.53		Aqueous Solubility Prediction Method
logp	1.145		Crippen Method
mcvol	95.710	ml/mol	McGowan Method
pc	4432.62	kPa	Joback Method
rinpol	1019.20		NIST Webbook
rinpol	995.00		NIST Webbook
rinpol	1035.00		NIST Webbook
rinpol	1035.00		NIST Webbook
rinpol	983.90		NIST Webbook
rinpol	1019.20		NIST Webbook
rinpol	994.00		NIST Webbook
rinpol	983.90		NIST Webbook
ripol	1307.00		NIST Webbook
ripol	1307.00		NIST Webbook
tb	456.70	K	NIST Webbook
tb	358.00 ± 2.00	K	NIST Webbook
tb	457.00	K	NIST Webbook
tb	458.00	K	NIST Webbook
tb	457.65 ± 0.50	K	NIST Webbook
tb	458.15 ± 0.30	K	NIST Webbook
tc	685.40	K	Joback Method
tf	260.65	K	Aqueous Solubility Prediction Method
vc	0.348	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	210.72	J/mol×K	534.31	Joback Method
cpg	199.64	J/mol×K	496.54	Joback Method
cpg	248.07	J/mol×K	685.40	Joback Method

cpg	239.71	J/molxK	647.63	Joback Method
cpg	230.72	J/molxK	609.85	Joback Method
cpg	221.07	J/molxK	572.08	Joback Method
cpg	187.78	J/molxK	458.77	Joback Method
cpl	207.18	J/molxK	298.15	NIST Webbook
hvapt	52.70 ± 0.30	kJ/mol	327.50	NIST Webbook
hvapt	51.80	kJ/mol	380.00	NIST Webbook
pvap	0.05	kPa	291.60	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.09	kPa	298.40	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.11	kPa	301.30	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration

pvap	0.13	kPa	303.40	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.04	kPa	287.60	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.08	kPa	296.50	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.17	kPa	307.40	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration

pvap	0.18	kPa	308.30	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.18	kPa	308.40	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.21	kPa	310.30	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.25	kPa	313.40	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration

pvap	0.01	kPa	276.70	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.02	kPa	276.70	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.02	kPa	279.60	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.02	kPa	279.60	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration

pvap	0.03	kPa	282.30	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.03	kPa	282.30	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.03	kPa	285.70	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.03	kPa	285.70	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration

pvap	0.04	kPa	288.00	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.04	kPa	288.00	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.06	kPa	293.50	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.05	kPa	291.60	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration



pvap	0.06	kPa	294.20	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.06	kPa	294.20	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.08	kPa	297.70	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.08	kPa	297.70	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration

pvap	0.10	kPa	300.30	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.10	kPa	300.30	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.13	kPa	303.30	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.13	kPa	303.50	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration

pvap	0.15	kPa	306.10	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.15	kPa	306.30	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.19	kPa	309.40	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.20	kPa	309.50	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration

pvap	0.23	kPa	312.20	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.23	kPa	312.30	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.23	kPa	312.30	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.30	kPa	315.60	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration

pvap	0.06	kPa	292.74	Experimental Vapor Pressures of 2-Phenylethylamine, Benzylamine, Triethylamine, and cis-2,6-Dimethylpiperidine in the Range between 0.2 Pa and 75 kPa
pvap	0.13	kPa	302.68	Experimental Vapor Pressures of 2-Phenylethylamine, Benzylamine, Triethylamine, and cis-2,6-Dimethylpiperidine in the Range between 0.2 Pa and 75 kPa
pvap	0.26	kPa	312.69	Experimental Vapor Pressures of 2-Phenylethylamine, Benzylamine, Triethylamine, and cis-2,6-Dimethylpiperidine in the Range between 0.2 Pa and 75 kPa
pvap	0.49	kPa	322.67	Experimental Vapor Pressures of 2-Phenylethylamine, Benzylamine, Triethylamine, and cis-2,6-Dimethylpiperidine in the Range between 0.2 Pa and 75 kPa
pvap	0.88	kPa	332.70	Experimental Vapor Pressures of 2-Phenylethylamine, Benzylamine, Triethylamine, and cis-2,6-Dimethylpiperidine in the Range between 0.2 Pa and 75 kPa

pvap	1.52	kPa	342.68	Experimental Vapor Pressures of 2-Phenylethylamine, Benzylamine, Triethylamine, and cis-2,6-Dimethylpiperidine in the Range between 0.2 Pa and 75 kPa
pvap	0.05	kPa	290.50	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	4.07	kPa	362.67	Experimental Vapor Pressures of 2-Phenylethylamine, Benzylamine, Triethylamine, and cis-2,6-Dimethylpiperidine in the Range between 0.2 Pa and 75 kPa
pvap	0.03	kPa	284.50	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.02	kPa	281.50	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration

pvap	0.02	kPa	278.60	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.14	kPa	304.30	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	0.01	kPa	275.50	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
pvap	2.51	kPa	352.67	Experimental Vapor Pressures of 2-Phenylethylamine, Benzylamine, Triethylamine, and cis-2,6-Dimethylpiperidine in the Range between 0.2 Pa and 75 kPa

pvap	0.13	kPa	303.40	The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by Correlation Gas Chromatography and Transpiration
rhoI	978.34	kg/m3	298.15	Thermodynamics of mixtures containing amines. XVI. CE pm of 1-butanol, 1-octanol or 1-decanol + benzylamine systems at (298.15, 308.15, 318.15 and 333.15) K
rhoI	983.40	kg/m3	293.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	978.90	kg/m3	298.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	974.40	kg/m3	303.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	970.00	kg/m3	308.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines



rhoI	965.70	kg/m3	313.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	961.30	kg/m3	318.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	956.90	kg/m3	323.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	952.50	kg/m3	328.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	948.20	kg/m3	333.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	943.70	kg/m3	338.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	939.40	kg/m3	343.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines

rhoI	935.00	kg/m3	348.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	930.60	kg/m3	353.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	926.20	kg/m3	358.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	921.80	kg/m3	363.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	917.30	kg/m3	368.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	912.90	kg/m3	373.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	908.50	kg/m3	378.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines

rhoI	904.00	kg/m3	383.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	899.70	kg/m3	388.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	895.20	kg/m3	393.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	890.60	kg/m3	398.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	886.20	kg/m3	403.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	881.60	kg/m3	408.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	877.10	kg/m3	413.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines

rhoI	872.50	kg/m3	418.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	867.90	kg/m3	423.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	863.30	kg/m3	428.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	858.70	kg/m3	433.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	854.00	kg/m3	438.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	849.30	kg/m3	443.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	983.66	kg/m3	293.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines

rhoI	979.35	kg/m3	298.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	978.34	kg/m3	298.15	THERMODYNAMICS OF MIXTURES CONTAINING AMINES. XIV. CpEm OF BENZYLAMINE WITH HEPTANE AT 293.15 K OR WITH METHANOL, 1-PROPANOL OR 1-PENTANOL AT (293.15-308.15) K
rhoI	970.67	kg/m3	308.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	966.33	kg/m3	313.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	961.98	kg/m3	318.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	957.63	kg/m3	323.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines

rhoI	953.27	kg/m3	328.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	978.00	kg/m3	298.15	Volumetric, acoustic and transport properties of mixtures containing dimethyl sulfoxide and some amines or alkanolamines: Measurement and correlation
rhoI	944.53	kg/m3	338.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	940.14	kg/m3	343.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	978.34	kg/m3	298.15	Thermodynamics of Mixtures Containing Amines. XV. Liquid Liquid Equilibria for Benzylamine + CH <sub>3</sub> (CH <sub>2</sub> ) <sub>n</sub> CH <sub>3</sub> (n = 8, 9, 10, 12, 14)
rhoI	957.00	kg/m3	323.15	Volumetric, acoustic and transport properties of mixtures containing dimethyl sulfoxide and some amines or alkanolamines: Measurement and correlation

rhoI	974.00	kg/m3	303.15	Volumetric, acoustic and transport properties of mixtures containing dimethyl sulfoxide and some amines or alkanolamines: Measurement and correlation
rhoI	983.00	kg/m3	293.15	Volumetric, acoustic and transport properties of mixtures containing dimethyl sulfoxide and some amines or alkanolamines: Measurement and correlation
rhoI	975.60	kg/m3	303.15	Unravelling various types of non-covalent interactions of benzyl amine with ethers in n-hexane at 303.15 K by ultrasonic and DFT methods
rhoI	975.01	kg/m3	303.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines
rhoI	965.00	kg/m3	313.15	Volumetric, acoustic and transport properties of mixtures containing dimethyl sulfoxide and some amines or alkanolamines: Measurement and correlation
rhoI	948.90	kg/m3	333.15	Measurement and Correlation for Acoustic, Transport, Refractive, and High-Temperature Volumetric Data of Substituted Benzylamines

srf	0.04	N/m	313.15	Surface Tension and Refractive Index of Benzylamine and 1,2-Diaminopropane Aqueous Solutions from T = (283.15 to 323.15) K
srf	0.04	N/m	303.15	Surface Tension and Refractive Index of Benzylamine and 1,2-Diaminopropane Aqueous Solutions from T = (283.15 to 323.15) K
srf	0.04	N/m	293.15	Surface Tension and Refractive Index of Benzylamine and 1,2-Diaminopropane Aqueous Solutions from T = (283.15 to 323.15) K
srf	0.04	N/m	283.15	Surface Tension and Refractive Index of Benzylamine and 1,2-Diaminopropane Aqueous Solutions from T = (283.15 to 323.15) K
srf	0.04	N/m	323.15	Surface Tension and Refractive Index of Benzylamine and 1,2-Diaminopropane Aqueous Solutions from T = (283.15 to 323.15) K

## Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	363.20	K	1.60	NIST Webbook
tbrp	363.00	K	1.60	NIST Webbook



# Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.49879e+01
Coeff. B	-4.16213e+03
Coeff. C	-5.67710e+01
Temperature range (K), min.	339.90
Temperature range (K), max.	486.90

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/T + C*\ln(T) + D*T^2$
Coeff. A	7.85699e+01
Coeff. B	-8.96094e+03
Coeff. C	-8.99328e+00
Coeff. D	3.41134e-06
Temperature range (K), min.	227.15
Temperature range (K), max.	683.50

# Sources

The Vaporization Enthalpy and Vapor Pressure of (d)-Amphetamine and of Several Primary Amines Used as Standards at T/K = 298 As Evaluated by KDB Vapor Pressure Data: Correlation Gas Chromatography and Transpiration: Unravelling various types of non-covalent interactions of benzyl amine with Peltier in n-hexane at 303.15 K by ultrasonic and DFT methods: Aqueous Solubility Prediction Method: <https://www.doi.org/10.1021/je400212t>  
<https://www.cheric.org/files/research/kdb/mol/mol1296.mol>  
<https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1296>  
<https://www.doi.org/10.1016/j.fluid.2018.08.001>  
<http://pubs.acs.org/doi/abs/10.1021/ci9903071>  
<http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDataset002.xlsx>  
Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Vapor Pressures of 2-Phenyl-1-propanamine, Benzylamine, Triethylamine, and Dimethylamine: The Known Vapor Pressure of Vapor Pressure of 2-Phenyl-1-propanamine in the Range between 0.2 and 0.8 kPa and Transport Properties of Mixtures Containing Methylamine and Correlation for Acoustic Transmittance, Refractive and Density Temperature Volumetric Data of Substituted Benzylamines: Surface Tension and Refractive Index of Benzylamine and The Thermodynamic Properties of Mixtures Containing Amines (201, Liquid 23, 15) Enthalpy of Benzylamines containing amines = 89.96, 96.04, 1-butanol, 1-octanol or 1-decanol + benzylamine systems at (298.15, 308.15, 318.15 and 333.15) K: <https://www.doi.org/10.1021/je050334+>  
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THERMODYNAMICS OF MIXTURES CONTAINING AMINES. XIV. CpEm OF BENZYLAMINE WITH HEPTANE AT 293.15 K OR WITH METHANOL, 1-PROPANOL OR 1-PENTANOL AT 293.15-308.15 K:

## Legend

<b>affp:</b>	Proton affinity
<b>basg:</b>	Gas basicity
<b>chl:</b>	Standard liquid enthalpy of combustion
<b>cpg:</b>	Ideal gas heat capacity
<b>cpl:</b>	Liquid phase heat capacity
<b>ep:</b>	Protonation entropy at 298K
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfl:</b>	Liquid phase enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>hvapt:</b>	Enthalpy of vaporization at a given temperature
<b>ie:</b>	Ionization energy
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>pvap:</b>	Vapor pressure
<b>rho:</b>	Liquid Density
<b>rinpol:</b>	Non-polar retention indices
<b>ripol:</b>	Polar retention indices
<b>srf:</b>	Surface Tension
<b>tb:</b>	Normal Boiling Point Temperature
<b>tbrp:</b>	Boiling point at reduced pressure
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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