Benzene, nitro-

Other names:	Essence of Mirbane
	Essence of Myrbane
	Mirbane oil
	NCI-C60082
	NITROBENZENE
	NITROBENZOL
	NSC 9573
	Nitrobenzeen
	Nitrobenzen
	Oil of Mirbane
	Oil of Myrbane
	Rcra waste number U169
	UN 1662
Inchi:	InChI=1S/C6H5NO2/c8-7(9)6-4-2-1-3-5-6/h1-5H
InchiKey:	LQNUZADURLCDLV-UHFFFAOYSA-N
Formula:	C6H5NO2
SMILES:	O=[N+]([O-])c1ccccc1
Mol. weight [g/mol]:	123.11
CAS:	98-95-3

Physical Properties

Property code	Value	Unit	Source
affp	800.30	kJ/mol	NIST Webbook
basg	769.50	kJ/mol	NIST Webbook
chl	-3096.00	kJ/mol	NIST Webbook
chl	-3073.80	kJ/mol	NIST Webbook
chl	-3088.08 ± 0.42	kJ/mol	NIST Webbook
dvisc	0.0016860	Pa×s	Ion Pair and Triple Ion Formation by Some Tetraalkylammonium Iodides in Binary Mixtures of Carbon Tetrachloride + Nitrobenzene
ea	0.40	eV	NIST Webbook
ea	0.70 ± 0.20	eV	NIST Webbook
ea	1.00 ± 0.06	eV	NIST Webbook
ea	1.01 ± 0.10	eV	NIST Webbook
ea	1.10	eV	NIST Webbook

ea	1.18 ± 0.05	eV	NIST Webbook
ea	1.02 ± 0.05	eV	NIST Webbook
ea	1.00 ± 0.02	eV	NIST Webbook
ea	1.00 ± 0.01	eV	NIST Webbook
gf	147.60	kJ/mol	Joback Method
hf	68.53 ± 0.67	kJ/mol	NIST Webbook
hfl	-16.00	kJ/mol	NIST Webbook
hfl	12.50 ± 0.54	kJ/mol	NIST Webbook
hfus	16.70	kJ/mol	Joback Method
hvap	54.50	kJ/mol	NIST Webbook
hvap	56.10 ± 1.70	kJ/mol	NIST Webbook
hvap	55.00	kJ/mol	NIST Webbook
hvap	55.01 ± 0.02	kJ/mol	NIST Webbook
ie	9.93	eV	NIST Webbook
ie	10.80	eV	NIST Webbook
ie	10.16 ± 0.08	eV	NIST Webbook
ie	9.93	eV	NIST Webbook
ie	10.10 ± 0.10	eV	NIST Webbook
ie	9.88 ± 0.01	eV	NIST Webbook
ie	9.92	eV	NIST Webbook
ie	9.90	eV	NIST Webbook
ie	9.86	eV	NIST Webbook
ie	9.92	eV	NIST Webbook
ie	9.70 ± 0.10	eV	NIST Webbook
ie	10.26	eV	NIST Webbook
ie	9.87 ± 0.05	eV	NIST Webbook
ie	9.93	eV	NIST Webbook
ie	9.92	eV	NIST Webbook
ie	10.16 ± 0.08	eV	NIST Webbook
ie	10.16 ± 0.04	eV	NIST Webbook
ie	9.80	eV	NIST Webbook
ie	9.67	eV	NIST Webbook
ie	9.94 ± 0.08	eV	NIST Webbook
ie	9.90	eV	NIST Webbook
ie	9.86 ± 0.05	eV	NIST Webbook
ie	9.90 ± 0.03	eV	NIST Webbook
ie	9.60	eV	NIST Webbook
ie	9.99	eV	NIST Webbook
ie	9.99 ± 0.01	eV	NIST Webbook
ie	9.94 ± 0.03	eV	NIST Webbook
ie	9.85 ± 0.03	eV	NIST Webbook
log10ws	-1.80		Estimated Solubility Method
log10ws	-1.81		Aqueous Solubility Prediction Method

logp	1.595		Crippen Method
mcvol	89.060	ml/mol	McGowan Method
nfpaf	%!d(float64=1)		KDB
nfpah	%!d(float64=3)		KDB
nfpas	%!d(float64=2)		KDB
pc	4749.69	kPa	Joback Method
rinpol	1075.00		NIST Webbook
rinpol	1076.00		NIST Webbook
rinpol	1081.00		NIST Webbook
rinpol	1059.00		NIST Webbook
rinpol	1046.00		NIST Webbook
rinpol	1052.00		NIST Webbook
rinpol	1056.00		NIST Webbook
rinpol	1066.00		NIST Webbook
rinpol	1076.00		NIST Webbook
rinpol	1047.00		NIST Webbook
rinpol	1059.00		NIST Webbook
rinpol	1103.00		NIST Webbook
rinpol	1084.00		NIST Webbook
rinpol	1062.00		NIST Webbook
rinpol	1068.00		NIST Webbook
rinpol	1062.00		NIST Webbook
rinpol	1046.00		NIST Webbook
rinpol	1057.00		NIST Webbook
rinpol	1046.00		NIST Webbook
rinpol	1046.00		NIST Webbook
rinpol	180.05		NIST Webbook
rinpol	1100.00		NIST Webbook
rinpol	1049.40		NIST Webbook
rinpol	1068.50		NIST Webbook
rinpol	1085.00		NIST Webbook
rinpol	1071.00		NIST Webbook
rinpol	1076.00		NIST Webbook
rinpol	1056.00		NIST Webbook
rinpol	1088.80		NIST Webbook
rinpol	1103.00		NIST Webbook
rinpol	1054.00		NIST Webbook
rinpol	1048.20		NIST Webbook
rinpol	1068.50		NIST Webbook
rinpol	1057.40		NIST Webbook
rinpol	1049.20		NIST Webbook
rinpol	1066.70		NIST Webbook
rinpol	1058.30		NIST Webbook
rinpol	1049.40		NIST Webbook

rinpol	1088.80		NIST Webbook
rinpol	1100.00		NIST Webbook
rinpol	1100.00		NIST Webbook
rinpol	1088.00		NIST Webbook
rinpol	1071.00		NIST Webbook
rinpol	1114.00		NIST Webbook
rinpol	1076.00		NIST Webbook
rinpol	1085.00		NIST Webbook
rinpol	1075.00		NIST Webbook
rinpol	1062.00		NIST Webbook
ripol	1683.00		NIST Webbook
ripol	1683.00		NIST Webbook
ripol	1683.00		NIST Webbook
sl	224.30	J/mol×K	NIST Webbook
tb	483.90 ± 0.30	K	NIST Webbook
tb	484.20 ± 0.50	K	NIST Webbook
tb	483.90	K	KDB
tb	484.00 ± 1.00	K	NIST Webbook
tb	483.80 ± 0.40	K	NIST Webbook
tb	478.15 ± 1.50	K	NIST Webbook
tb	483.95 ± 1.00	K	NIST Webbook
tb	484.00 ± 0.35	K	NIST Webbook
tb	482.00 ± 2.00	K	NIST Webbook
tb	482.15 ± 2.00	K	NIST Webbook
tb	484.00 ± 0.40	K	NIST Webbook
tb	482.65 ± 0.50	K	NIST Webbook
tb	483.90 ± 0.50	K	NIST Webbook
tb	483.95 ± 0.30	K	NIST Webbook
tb	483.90 ± 0.30	K	NIST Webbook
tb	483.90 ± 0.50	K	NIST Webbook
tb	482.15 ± 1.00	K	NIST Webbook
tb	485.09 ± 0.25	K	NIST Webbook
tb	483.95 ± 0.50	K	NIST Webbook
tb	481.10 ± 1.00	K	NIST Webbook
tb	483.95 ± 0.70	K	NIST Webbook
tb	483.71 ± 0.40	K	NIST Webbook
tb	483.55 ± 0.40	K	NIST Webbook
tb	483.70 ± 0.50	K	NIST Webbook
tb	484.00	K	NIST Webbook
tb	483.70 ± 0.50	K	NIST Webbook
tc	769.26	K	Joback Method
tf	278.81	K	KDB
tf	278.82	K	Aqueous Solubility Prediction Method
vc	0.345	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	208.60	J/mol×K	642.23	Joback Method
cpg	190.50	J/mol×K	557.54	Joback Method
cpg	180.20	J/mol×K	515.20	Joback Method
cpg	216.51	J/mol×K	684.57	Joback Method
cpg	223.71	J/mol×K	726.92	Joback Method
cpg	230.26	J/mol×K	769.26	Joback Method
cpg	199.95	J/mol×K	599.89	Joback Method
cpl	179.95	J/mol×K	293.15	NIST Webbook
cpl	188.70	J/mol×K	335.50	NIST Webbook
cpl	180.20	J/mol×K	293.00	NIST Webbook
cpl	177.80	J/mol×K	298.00	NIST Webbook
cpl	177.40	J/mol×K	303.00	NIST Webbook
cpl	176.00	J/mol×K	303.00	NIST Webbook
cpl	181.13	J/mol×K	298.15	NIST Webbook
cpl	177.30	J/mol×K	303.15	NIST Webbook
cpl	179.90	J/mol×K	293.00	NIST Webbook
cpl	186.69	J/mol×K	298.10	NIST Webbook
cpl	186.73	J/mol×K	298.00	NIST Webbook
dvisc	0.0017910	Pa×s	298.15	Thermophysical Properties For Diethylene Glycol + Nitrobenzene and Triethylene Glycol + (Chloro-, Bromo-, Nitro-) Benzene Systems at Different Temperatures
dvisc	0.0015430	Pa×s	308.15	Thermophysical Properties For Diethylene Glycol + Nitrobenzene and Triethylene Glycol + (Chloro-, Bromo-, Nitro-) Benzene Systems at Different Temperatures

dvisc	0.0015543	Pa×s	308.15	Thermophysical Properties of Binary Mixtures of Cyclohexane + Nitrobenzene, Cyclohexanone + Nitrobenzene, and Cyclohexane + Cyclohexanone at (298.15, 303.15, and 308.15) K
dvisc	0.0016187	Pa×s	303.15	Thermophysical Properties of Binary Mixtures of Cyclohexane + Nitrobenzene, Cyclohexanone + Nitrobenzene, and Cyclohexane + Cyclohexanone at (298.15, 303.15, and 308.15) K
dvisc	0.0016860	Pa×s	298.15	Thermophysical Properties of Binary Mixtures of Cyclohexane + Nitrobenzene, Cyclohexanone + Nitrobenzene, and Cyclohexane + Cyclohexanone at (298.15, 303.15, and 308.15) K
dvisc	0.0019834	Pa×s	293.15	Densities and Viscosities of Binary and Ternary Mixtures of (Nitrobenzene + 1-Bromobutane), (1-Bromobutane + Methylcyclohexane), (Nitrobenzene + Methylcyclohexane), and (Methylcyclohexane + Nitrobenzene + 1-Bromobutane) from (293.15 to 308.15) K

dvisc	0.0018095	Pa×s	298.15	Densities and Viscosities of Binary and Ternary Mixtures of (Nitrobenzene + 1-Bromobutane), (1-Bromobutane + Methylcyclohexane), (Nitrobenzene + Methylcyclohexane), and (Methylcyclohexane + Nitrobenzene + 1-Bromobutane) from (293.15 to 308.15) K
dvisc	0.0016595	Pa×s	303.15	Densities and Viscosities of Binary and Ternary Mixtures of (Nitrobenzene + 1-Bromobutane), (1-Bromobutane + Methylcyclohexane), (Nitrobenzene + Methylcyclohexane), and (Methylcyclohexane + Nitrobenzene + 1-Bromobutane) from (293.15 to 308.15) K
dvisc	0.0015286	Pa×s	308.15	Densities and Viscosities of Binary and Ternary Mixtures of (Nitrobenzene + 1-Bromobutane), (1-Bromobutane + Methylcyclohexane), (Nitrobenzene + Methylcyclohexane), and (Methylcyclohexane + Nitrobenzene + 1-Bromobutane) from (293.15 to 308.15) K
hfust	10.81	kJ/mol	278.90	NIST Webbook
hfust	12.12	kJ/mol	278.80	NIST Webbook
hfust	12.12	kJ/mol	278.80	NIST Webbook
hfust	12.12	kJ/mol	278.80	NIST Webbook
hvapt	56.10 ± 0.42	kJ/mol	291.00	NIST Webbook
hvapt	54.30	kJ/mol	303.00	NIST Webbook
hvapt	52.50	kJ/mol	293.00	NIST Webbook
hvapt	48.50	kJ/mol	445.00	NIST Webbook

hvapt	48.90	kJ/mol	425.00	NIST Webbook
hvapt	54.70	kJ/mol	287.50	NIST Webbook
pvap	95.30	kPa	483.05	Vapor-liquid equilibrium for the binary mixtures of dimethylsulfoxide with substituted benzenes
pvap	95.50	kPa	481.45	Vapor-liquid equilibrium and excess Gibbs energies of some binary mixtures of acrylonitrile at 95.5 kPa
rfi	1.54900		293.15	Volumetric properties of binary mixtures of tributylamine with benzene derivatives and comparison with ERAS model results at temperatures from (293.15 to 333.15) K
rfi	1.54746		303.15	Volumetric and refractive properties of 1,3,5,7-tetravinyl-1,3,5,7-tetramethylcyclotetrasiloxane with methoxybenzene, chlorobenzene, tert-butylbenzene and nitrobenzene at T = (298.15-318.15) K
rfi	1.54500		308.15	Volumetric and refractive properties of 1,3,5,7-tetravinyl-1,3,5,7-tetramethylcyclotetrasiloxane with methoxybenzene, chlorobenzene, tert-butylbenzene and nitrobenzene at T = (298.15-318.15) K
rfi	1.55000		298.15	Bubble points of the binary mixtures formed by ethylbenzene with some chloroaliphatics and substituted benzenes at p = 94.7 kPa

rfi	1.55488	293.15	A study of densities and volumetric properties of binary mixtures containing nitrobenzene at T = (293.15 to 353.15) K	
rfi	1.55000	298.15	Excess Gibbs energies of binary mixtures formed by nitrobenzene with selected compounds at 94.95 kPa	
rfi	1.54250	313.15	Volumetric and refractive properties of 1,3,5,7-tetravinyl-1,3,5,7-tetramethylcyclotetrasiloxane with methoxybenzene, chlorobenzene, tert-butylbenzene and nitrobenzene at T = (298.15-318.15) K	
rfi	1.54005	318.15	Volumetric and refractive properties of 1,3,5,7-tetravinyl-1,3,5,7-tetramethylcyclotetrasiloxane with methoxybenzene, chlorobenzene, tert-butylbenzene and nitrobenzene at T = (298.15-318.15) K	
rfi	1.55000	298.15	Bubble Temperature Measurements on the Binary Mixtures of n-Heptane or Nitrobenzene or Chlorobenzene with Some Chloroethanes and Chloroethylenes at (94.6 to 95.8) kPa	

rfi	1.54760		303.15	Excess Volumes of Binary Solutions of Methyl Formate, Ethyl Formate, Propyl Formate, and Benzyl Acetate with Bromo-, Chloro-, and Nitrobenzenes at (303.15, 308.15, and 313.15) K	
rfi	1.54930		298.15	Physico-chemical studies of sodium tetraphenylborate and tetrabutylammonium tetraphenylborate in pure nitrobenzene and nitromethane and their binaries probed by conductometry, refractometry and FT-IR spectroscopy	
rfi	1.54992		298.15	Volumetric and refractive properties of 1,3,5,7-tetravinyl-1,3,5,7-tetramethylcyclotetrasiloxane with methoxybenzene, chlorobenzene, tert-butylbenzene and nitrobenzene at T = (298.15-318.15) K	
rhol	1198.01	kg/m3	298.15	Volumetric properties of dichloromethane with aniline or nitrobenzene at different temperatures: A theoretical and experimental study	
rhol	1198.00	kg/m3	298.15	Bubble point measurements of binary mixtures formed by 1-hexanol with selected nitro-compounds and substituted benzenes at 95.6 kPa	

rhol	1198.36	kg/m3	298.15	Ionic solvation of tetrabutylammonium hexafluorophosphate in pure nitromethane, 1, 3-dioxolane and nitrobenzene: A comparative physicochemical study	
rhol	1198.00	kg/m3	298.15	Bubble point temperatures of the binary mixtures of nitrobenzene with C1 C4 aliphatic alcohols at 94.95 kPa	
rhol	1211.53	kg/m3	288.15	Volumetric properties of dichloromethane with aniline or nitrobenzene at different temperatures: A theoretical and experimental study	
rhol	1187.20	kg/m3	313.15	Density, Viscosity, Sound Speed, and Thermoacoustical Parameters of Benzaldehyde with Chlorobenzene or Nitrobenzene at 303.15 K, 308.15 K, and 313.15 K	
rhol	1189.40	kg/m3	308.15	Density, Viscosity, Sound Speed, and Thermoacoustical Parameters of Benzaldehyde with Chlorobenzene or Nitrobenzene at 303.15 K, 308.15 K, and 313.15 K	
rhol	1193.50	kg/m3	303.15	Volumetric properties of dichloromethane with aniline or nitrobenzene at different temperatures: A theoretical and experimental study	

rhol	1212.99	kg/m3	283.15	The density, refractive index, and thermodynamic behaviour of binary mixtures of 1,3-Diethenyl-1,1,3,3-tetramethyldisiloxane with aromatic hydrocarbons
rhol	1208.01	kg/m3	288.15	The density, refractive index, and thermodynamic behaviour of binary mixtures of 1,3-Diethenyl-1,1,3,3-tetramethyldisiloxane with aromatic hydrocarbons
rhol	1203.05	kg/m3	293.15	The density, refractive index, and thermodynamic behaviour of binary mixtures of 1,3-Diethenyl-1,1,3,3-tetramethyldisiloxane with aromatic hydrocarbons
rhol	1198.20	kg/m3	298.15	The density, refractive index, and thermodynamic behaviour of binary mixtures of 1,3-Diethenyl-1,1,3,3-tetramethyldisiloxane with aromatic hydrocarbons
rhol	1193.25	kg/m3	303.15	The density, refractive index, and thermodynamic behaviour of binary mixtures of 1,3-Diethenyl-1,1,3,3-tetramethyldisiloxane with aromatic hydrocarbons
rhol	1198.12	kg/m3	298.15	A combined experimental and computational investigation of excess molar enthalpies of (nitrobenzene + alkanol) mixtures

rhol	1188.17	kg/m3	308.15	The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K
rhol	1183.21	kg/m3	313.15	The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K
rhol	1189.60	kg/m3	303.15	Density, Viscosity, Sound Speed, and Thermoacoustical Parameters of Benzaldehyde with Chlorobenzene or Nitrobenzene at 303.15 K, 308.15 K, and 313.15 K
rhol	1173.26	kg/m3	323.15	The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K
rhol	1198.20	kg/m3	298.15	The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K
rhol	1193.25	kg/m3	303.15	The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K

rhol	1203.05	kg/m3	293.15	Theoretical and experimental study on volumetric and electromagnetic properties of binary systems consisting of 1,2-dichloroethane with benzene and its derivatives at T = (293.15 to 333.15) K
rhol	1193.15	kg/m3	303.15	Theoretical and experimental study on volumetric and electromagnetic properties of binary systems consisting of 1,2-dichloroethane with benzene and its derivatives at T = (293.15 to 333.15) K
rhol	1183.21	kg/m3	313.15	Theoretical and experimental study on volumetric and electromagnetic properties of binary systems consisting of 1,2-dichloroethane with benzene and its derivatives at T = (293.15 to 333.15) K
rhol	1173.27	kg/m3	323.15	Theoretical and experimental study on volumetric and electromagnetic properties of binary systems consisting of 1,2-dichloroethane with benzene and its derivatives at T = (293.15 to 333.15) K
rhol	1163.32	kg/m3	333.15	Theoretical and experimental study on volumetric and electromagnetic properties of binary systems consisting of 1,2-dichloroethane with benzene and its derivatives at T = (293.15 to 333.15) K

rhol	1193.45	kg/m3	303.15	Studies on the importance of nature of substituent on the thermodynamic and transport properties of liquid mixtures at various temperatures	
rhol	1188.29	kg/m3	308.15	Studies on the importance of nature of substituent on the thermodynamic and transport properties of liquid mixtures at various temperatures	
rhol	1183.69	kg/m3	313.15	Studies on the importance of nature of substituent on the thermodynamic and transport properties of liquid mixtures at various temperatures	
rhol	1177.32	kg/m3	318.15	Studies on the importance of nature of substituent on the thermodynamic and transport properties of liquid mixtures at various temperatures	
rhol	1193.40	kg/m3	303.15	Studies of viscosities of dilute solutions of alkylamine in non-electrolyte solvents. II. Haloalkanes and other polar solvents	
rhol	1198.80	kg/m3	293.15	Isobaric Vapor Liquid Equilibrium Data of Acrylonitrile (1) + Heptan-1-ol (2), Acrylonitrile (1) + Ethanol (2), and Nitrobenzene (1) + Heptan-1-ol (2) at 96.5 kPa	

rhol	1198.91	kg/m3	298.15	Partial Molar Volumes of Butyltriethylammonium Iodide in Single Nonaqueous Solvents at 298.15 K
rhol	1202.61	kg/m3	293.15	Volumetric properties of dichloromethane with aniline or nitrobenzene at different temperatures: A theoretical and experimental study
rhol	1178.24	kg/m3	318.15	The physicochemical properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)cyclotrisiloxane with various aromatic hydrocarbons at T = (308.15 to 323.15) K
sfust	38.80	J/mol×K	278.90	NIST Webbook
sfust	43.48	J/mol×K	278.80	NIST Webbook
srf	0.04	N/m	303.15	Thermo Physical Properties of 4-Hydroxy 4-Methyl Pentanone with Nitrobenzene or Ethyl Benzene at Temperatures of (303.15, 313.15, and 323.15) K and a Pressure of 0.1 MPa
srf	0.04	N/m	313.15	Thermo Physical Properties of 4-Hydroxy 4-Methyl Pentanone with Nitrobenzene or Ethyl Benzene at Temperatures of (303.15, 313.15, and 323.15) K and a Pressure of 0.1 MPa

srf	0.04	N/m	323.15	Thermo Physical Properties of 4-Hydroxy 4-Methyl Pentanone with Nitrobenzene or Ethyl Benzene at Temperatures of (303.15, 313.15, and 323.15) K and a Pressure of 0.1 MPa

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbp	483.05	K	95.30	Excess enthalpies of dimethylsulfoxide with substituted benzenes at 298.15K
tfp	427.24	K	800000.00	Fusion Curves and Enthalpy and Internal Energy Changes of Benzene, Nitrobenzene, Bromobenzene, and Chlorobenzene at Pressures up to 3500 MPa
tfp	340.02	K	300000.00	Fusion Curves and Enthalpy and Internal Energy Changes of Benzene, Nitrobenzene, Bromobenzene, and Chlorobenzene at Pressures up to 3500 MPa
tfp	360.41	K	400000.00	Fusion Curves and Enthalpy and Internal Energy Changes of Benzene, Nitrobenzene, Bromobenzene, and Chlorobenzene at Pressures up to 3500 MPa

tfp	378.61	K	500000.00	Fusion Curves and Enthalpy and Internal Energy Changes of Benzene, Nitrobenzene, Bromobenzene, and Chlorobenzene at Pressures up to 3500 MPa
tfp	395.90	K	600000.00	Fusion Curves and Enthalpy and Internal Energy Changes of Benzene, Nitrobenzene, Bromobenzene, and Chlorobenzene at Pressures up to 3500 MPa
tfp	412.30	K	700000.00	Fusion Curves and Enthalpy and Internal Energy Changes of Benzene, Nitrobenzene, Bromobenzene, and Chlorobenzene at Pressures up to 3500 MPa
tfp	320.77	K	200000.00	Fusion Curves and Enthalpy and Internal Energy Changes of Benzene, Nitrobenzene, Bromobenzene, and Chlorobenzene at Pressures up to 3500 MPa
tfp	442.98	K	900000.00	Fusion Curves and Enthalpy and Internal Energy Changes of Benzene, Nitrobenzene, Bromobenzene, and Chlorobenzene at Pressures up to 3500 MPa

tfp	462.61	K	1000000.00	Fusion Curves and Enthalpy and Internal Energy Changes of Benzene, Nitrobenzene, Bromobenzene, and Chlorobenzene at Pressures up to 3500 MPa
tfp	516.38	K	1500000.00	Fusion Curves and Enthalpy and Internal Energy Changes of Benzene, Nitrobenzene, Bromobenzene, and Chlorobenzene at Pressures up to 3500 MPa
tfp	565.62	K	2000000.00	Fusion Curves and Enthalpy and Internal Energy Changes of Benzene, Nitrobenzene, Bromobenzene, and Chlorobenzene at Pressures up to 3500 MPa
tfp	595.88	K	2500000.00	Fusion Curves and Enthalpy and Internal Energy Changes of Benzene, Nitrobenzene, Bromobenzene, and Chlorobenzene at Pressures up to 3500 MPa
tfp	614.38	K	3000000.00	Fusion Curves and Enthalpy and Internal Energy Changes of Benzene, Nitrobenzene, Bromobenzene, and Chlorobenzene at Pressures up to 3500 MPa

tfp	299.74	K	100000.00	Fusion Curves and Enthalpy and Internal Energy Changes of Benzene, Nitrobenzene, Bromobenzene, and Chlorobenzene at Pressures up to 3500 MPa

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.53379e+01
Coeff. B	-4.64614e+03
Coeff. C	-5.05750e+01
Temperature range (K), min.	359.28
Temperature range (K), max.	513.96

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	1.29288e+02
Coeff. B	-1.14658e+04
Coeff. C	-1.66824e+01
Coeff. D	9.14721e-06
Temperature range (K), min.	278.91
Temperature range (K), max.	719.00

Datasets

Speed of sound, m/s

Temperature, K - Liquid	Pressure, kPa - Liquid	Frequency, MHz - Liquid	Speed of sound, m/s - Liquid

303.15	100.00	2.0	1445.6

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Legend

affp:	Proton affinity
basg:	Gas basicity
chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
dvisc:	Dynamic viscosity
ea:	Electron affinity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hfust:	Enthalpy of fusion at a given temperature
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
nfpaf:	NFPA Fire Rating
nfpah:	NFPA Health Rating
nfpas:	NFPA Safety Rating

pc:	Critical Pressure
pvap:	Vapor pressure
rfi:	Refractive Index
rhol:	Liquid Density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
sfust:	Entropy of fusion at a given temperature
sl:	Liquid phase molar entropy at standard conditions
speedsl:	Speed of sound in fluid
srf:	Surface Tension
tb:	Normal Boiling Point Temperature
tbp:	Boiling point at given pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
tfp:	Melting point
vc:	Critical Volume