Mesitylene

Other names:	1,3,5-Trimethylbenzene
	1,3,5-trimethylbenzene (mesitylene)
	2,4,6-Trimethylbenzene
	3,5-Dimethyltoluene
	Benzene, 1,3,5-trimethyl-
	FLEET-X
	NSC 9273
	S-TRIMETHYLBENEZENE
	TMB
	UN 2325
	s-Trimethylbenzene
	sym-Trimethylbenzene
Inchi:	InChI=1S/C9H12/c1-7-4-8(2)6-9(3)5-7/h4-6H,1-3H3
InchiKey:	AUHZEENZYGFFBQ-UHFFFAOYSA-N
Formula:	C9H12
SMILES:	Cc1cc(C)cc(C)c1
Mol. weight [g/mol]:	120.19
CAS:	108-67-8

Physical Properties

Property code	Value	Unit	Source
af	0.3990		KDB
affp	836.20	kJ/mol	NIST Webbook
affp	835.10	kJ/mol	NIST Webbook
basg	808.80	kJ/mol	NIST Webbook
basg	808.60	kJ/mol	NIST Webbook
chl	-5202.70	kJ/mol	NIST Webbook
chl	-5193.10 ± 1.30	kJ/mol	NIST Webbook
cpl	207.43	J/mol×K	Thermodynamics of mixtures involving some (benzene derivatives + benzonitrile)
dm	0.10	debye	KDB
gf	118.00	kJ/mol	KDB
hcg	5193.14	kJ/mol	KDB
hcn	4929.045	kJ/mol	KDB
hf	-16.08	kJ/mol	KDB
hfus	12.33	kJ/mol	Joback Method

hvap	39.23	kJ/mol	Joback Method
ie	8.40 ± 0.01	eV	NIST Webbook
ie	8.42	eV	NIST Webbook
ie	8.42	eV	NIST Webbook
ie	8.41 ± 0.02	eV	NIST Webbook
ie	8.39 ± 0.01	eV	NIST Webbook
ie	8.45 ± 0.05	eV	NIST Webbook
ie	8.45	eV	NIST Webbook
ie	8.47	eV	NIST Webbook
ie	8.20 ± 0.10	eV	NIST Webbook
ie	8.46	eV	NIST Webbook
ie	8.41 ± 0.01	eV	NIST Webbook
ie	8.40 ± 0.01	eV	NIST Webbook
ie	8.45 ± 0.05	eV	NIST Webbook
ie	8.65 ± 0.03	eV	NIST Webbook
ie	8.55	eV	NIST Webbook
log10ws	-3.40		Estimated Solubility Method
log10ws	-3.40		Aqueous Solubility Prediction Method
logp	2.612		Crippen Method
mcvol	113.910	ml/mol	McGowan Method
pc	3127.00	kPa	KDB
pc	3260.00 ± 9.81	kPa	NIST Webbook
pc	3255.00 ± 0.32	kPa	NIST Webbook
pc	3161.90 ± 0.31	kPa	NIST Webbook
pc	3130.00 ± 40.00	kPa	NIST Webbook
pc	3127.00 ± 6.00	kPa	NIST Webbook
rinpol	986.00		NIST Webbook
rinpol	964.00		NIST Webbook
rinpol	997.00		NIST Webbook
rinpol	996.00		NIST Webbook
rinpol	992.00		NIST Webbook
rinpol	994.00		NIST Webbook
rinpol	994.00		NIST Webbook
rinpol	995.00		NIST Webbook
rinpol	996.00		NIST Webbook
rinpol	999.00		NIST Webbook
rinpol	996.00		NIST Webbook
rinpol	995.00		NIST Webbook
rinpol	963.00		NIST Webbook
rinpol	960.00		NIST Webbook
rinpol	940.00		NIST Webbook
rinpol	956.00		NIST Webbook
rinpol	956.00		NIST Webbook

rinpol	952.00	NIST Webbook
rinpol	962.00	NIST Webbook
rinpol	974.70	NIST Webbook
rinpol	957.00	NIST Webbook
rinpol	954.00	NIST Webbook
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rinpol	956.18	NIST Webbook
rinpol	963.00	NIST Webbook
rinpol	995.00	NIST Webbook
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rinpol	971.00	NIST Webbook
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rinpol	964.00	NIST Webbook
rinpol	956.00	NIST Webbook
rinpol	963.00	NIST Webbook
rinpol	953.00	NIST Webbook
rinpol	1003.00	NIST Webbook
rinpol	962.00	NIST Webbook
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rinpol	954.00	NIST Webbook
rinpol	962.60	NIST Webbook
rinpol	968.90	NIST Webbook
rinpol	966.50	NIST Webbook
rinpol	967.40	NIST Webbook
rinpol	967.70	NIST Webbook
rinpol	976.00	NIST Webbook
rinpol	952.00	NIST Webbook
rinpol	953.00	NIST Webbook
rinpol	954.00	NIST Webbook
rinpol	960.00	NIST Webbook

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rinpol	968.00	NIST Webbook
rinpol	973.00	NIST Webbook
rinpol	968.00	NIST Webbook
rinpol	960.00	NIST Webbook
rinpol	979.50	NIST Webbook
rinpol	984.80	NIST Webbook
rinpol	947.50	NIST Webbook
rinpol	952.20	NIST Webbook
rinpol	953.33	NIST Webbook
rinpol	963.80	NIST Webbook
rinpol	972.10	NIST Webbook
rinpol	976.10	NIST Webbook
rinpol	981.30	NIST Webbook
rinpol	969.00	NIST Webbook
rinpol	952.00	NIST Webbook
rinpol	952.00	NIST Webbook
rinpol	962.00	NIST Webbook
rinpol	962.00	NIST Webbook
rinpol	962.40	NIST Webbook
rinpol	967.30	NIST Webbook
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rinpol	997.20	NIST Webbook
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ripol	1297.00	NIST Webbook
ripol	1251.00	NIST Webbook
ripol	1220.30	NIST Webbook
ripol	1251.00	NIST Webbook
ripol	1242.20	NIST Webbook

ripol	1263.00		NIST Webbook
sg	385.30 ± 0.63	J/mol×K	NIST Webbook
sl	273.55	J/mol×K	NIST Webbook
tb	437.83	K	Phase equilibria of three binary systems containing 2,5-dimethylthiophene and 2-ethylthiophene in hydrocarbons
tb	437.89	K	KDB
tc	637.30	K	KDB
tf	228.40	K	KDB
tf	228.23	K	Aqueous Solubility Prediction Method
tt	228.42 ± 0.01	K	NIST Webbook
vc	0.431	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	265.25	J/mol×K	581.96	Joback Method
cpg	275.86	J/mol×K	616.95	Joback Method
cpg	216.81	J/mol×K	441.96	Joback Method
cpg	229.86	J/mol×K	476.96	Joback Method
cpg	242.27	J/mol×K	511.96	Joback Method
cpg	254.06	J/mol×K	546.96	Joback Method
cpg	285.90	J/mol×K	651.95	Joback Method
cpl	207.66	J/mol×K	298.15	NIST Webbook
cpl	207.69	J/mol×K	298.15	NIST Webbook
cpl	205.50	J/mol×K	294.99	NIST Webbook
cpl	207.85	J/mol×K	298.15	NIST Webbook
cpl	211.30	J/mol×K	298.00	NIST Webbook
cpl	209.33	J/mol×K	298.15	NIST Webbook
cpl	201.46	J/mol×K	299.80	NIST Webbook
cpl	213.00	J/mol×K	298.00	NIST Webbook
cpl	206.50	J/mol×K	298.00	NIST Webbook
dvisc	0.0004900	Pa×s	314.15	Shear Viscosity of Mixtures of r-Tocopherol with Nonpolar Solvents
dvisc	0.0006300	Pa×s	296.15	Shear Viscosity of Mixtures of r-Tocopherol with Nonpolar Solvents

dvisc	0.0007500	Pa×s	290.15	Shear Viscosity of Mixtures of r-Tocopherol with Nonpolar Solvents
dvisc	0.0008000	Pa×s	284.15	Shear Viscosity of Mixtures of r-Tocopherol with Nonpolar Solvents
dvisc	0.0004600	Pa×s	320.15	Shear Viscosity of Mixtures of r-Tocopherol with Nonpolar Solvents
dvisc	0.0004400	Pa×s	325.15	Shear Viscosity of Mixtures of r-Tocopherol with Nonpolar Solvents
dvisc	0.0004100	Pa×s	330.15	Shear Viscosity of Mixtures of r-Tocopherol with Nonpolar Solvents
dvisc	0.0004000	Pa×s	335.15	Shear Viscosity of Mixtures of r-Tocopherol with Nonpolar Solvents
dvisc	0.0003900	Pa×s	340.15	Shear Viscosity of Mixtures of r-Tocopherol with Nonpolar Solvents
dvisc	0.0003500	Pa×s	345.15	Shear Viscosity of Mixtures of r-Tocopherol with Nonpolar Solvents
dvisc	0.0003400	Pa×s	350.15	Shear Viscosity of Mixtures of r-Tocopherol with Nonpolar Solvents
dvisc	0.0008500	Pa×s	278.15	Shear Viscosity of Mixtures of r-Tocopherol with Nonpolar Solvents

dvisc	0.0006210	Pa×s	303.15	Viscosities, Densities, and Speeds of Sound of Binary Mixtures of Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene with Anisole at (288.15, 293.15, 298.15, and 303.15) K
dvisc	0.0006610	Pa×s	298.15	Viscosities, Densities, and Speeds of Sound of Binary Mixtures of Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene with Anisole at (288.15, 293.15, 298.15, and 303.15) K
dvisc	0.0007050	Pa×s	293.15	Viscosities, Densities, and Speeds of Sound of Binary Mixtures of Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene with Anisole at (288.15, 293.15, 298.15, and 303.15) K
dvisc	0.0007540	Pa×s	288.15	Viscosities, Densities, and Speeds of Sound of Binary Mixtures of Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene with Anisole at (288.15, 293.15, 298.15, and 303.15) K

dvisc	0.0005066	Pa×s	318.15	Ultrasonic and viscometric study of molecular interactions in binary mixtures of aniline with 1-propanol, 2-propanol, 2-methyl-1-propanol, and 2-methyl-2-propanol at different temperatures
dvisc	0.0005792	Pa×s	308.15	Ultrasonic and viscometric study of molecular interactions in binary mixtures of aniline with 1-propanol, 2-propanol, 2-methyl-1-propanol, and 2-methyl-2-propanol at different temperatures
dvisc	0.0006572	Pa×s	298.15	Ultrasonic and viscometric study of molecular interactions in binary mixtures of aniline with 1-propanol, 2-propanol, 2-methyl-1-propanol, and 2-methyl-2-propanol at different temperatures
dvisc	0.0005700	Pa×s	302.15	Shear Viscosity of Mixtures of r-Tocopherol with Nonpolar Solvents
dvisc	0.0005300	Pa×s	308.15	Shear Viscosity of Mixtures of r-Tocopherol with Nonpolar Solvents
hfust	9.51	kJ/mol	228.40	NIST Webbook
hfust	9.51	kJ/mol	228.40	NIST Webbook
hvapt	51.10	kJ/mol	261.50	NIST Webbook
hvapt	47.70	kJ/mol	286.00	NIST Webbook
hvapt	46.20 ± 1.30	kJ/mol	319.00	NIST Webbook
hvapt	43.50	kJ/mol	386.00	NIST Webbook
hvapt	49.70	kJ/mol	302.50	NIST Webbook
hvapt	43.90	kJ/mol	399.50	NIST Webbook

pvap	101.33	kPa	437.83	Phase equilibria of three binary systems containing 2,5-dimethylthiophene and 2-ethylthiophene in hydrocarbons
rfi	1.49180		308.15	Refractive Indices of Binary Mixtures of Tetrahydrofuran with Aromatic Hydrocarbon at Temperatures from (288.15 to 318.15) K
rfi	1.49693		298.15	Density, Speed of Sound, and Refractive Index for Binary Mixtures Containing Cycloalkanes with o-Xylene, m-Xylene, p-Xylene, and Mesitylene at T = (298.15 and 313.15) K
rfi	1.48680		318.15	Densities, Refractive Indices, and Excess Properties of Binary Mixtures of 1,4-Dioxane with Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene at Temperatures from (288.15 to 318.15) K
rfi	1.48930		313.15	Densities, Refractive Indices, and Excess Properties of Binary Mixtures of 1,4-Dioxane with Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene at Temperatures from (288.15 to 318.15) K

rfi	1.49180	308.15	Densities, Refractive Indices, and Excess Properties of Binary Mixtures of 1,4-Dioxane with Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene at Temperatures from (288.15 to 318.15) K
rfi	1.48980	308.15	Thermodynamic properties of (tetradecane + benzene, + toluene, + chlorobenzene, + bromobenzene, + anisole) binary mixtures at T = (298.15, 303.15, and 308.15) K
rfi	1.49440	303.15	Densities, Refractive Indices, and Excess Properties of Binary Mixtures of 1,4-Dioxane with Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene at Temperatures from (288.15 to 318.15) K
rfi	1.49690	298.15	Densities, Refractive Indices, and Excess Properties of Binary Mixtures of 1,4-Dioxane with Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene at Temperatures from (288.15 to 318.15) K

rfi	1.49950	293.15	Densities, Refractive Indices, and Excess Properties of Binary Mixtures of 1,4-Dioxane with Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene at Temperatures from (288.15 to 318.15) K
rfi	1.48680	318.15	Refractive Indices of Binary Mixtures of Tetrahydrofuran with Aromatic Hydrocarbon at Temperatures from (288.15 to 318.15) K
rfi	1.48930	313.15	Refractive Indices of Binary Mixtures of Tetrahydrofuran with Aromatic Hydrocarbon at Temperatures from (288.15 to 318.15) K
rfi	1.48923	313.15	Density, Speed of Sound, and Refractive Index for Binary Mixtures Containing Cycloalkanes with o-Xylene, m-Xylene, p-Xylene, and Mesitylene at T = (298.15 and 313.15) K
rfi	1.49440	303.15	Refractive Indices of Binary Mixtures of Tetrahydrofuran with Aromatic Hydrocarbon at Temperatures from (288.15 to 318.15) K

rfi	1.49690	298.15	Refractive Indices of Binary Mixtures of Tetrahydrofuran with Aromatic Hydrocarbon at Temperatures from (288.15 to 318.15) K
rfi	1.49950	293.15	Refractive Indices of Binary Mixtures of Tetrahydrofuran with Aromatic Hydrocarbon at Temperatures from (288.15 to 318.15) K
rfi	1.50200	288.15	Refractive Indices of Binary Mixtures of Tetrahydrofuran with Aromatic Hydrocarbon at Temperatures from (288.15 to 318.15) K
rfi	1.49920	293.10	Liquid-Liquid Equilibria Measurements for Ternary System of Hexadecane + 1,3,5-Trimethylbenzene + N-Methyl-2-pyrrolidone
rfi	1.49684	298.15	KDB
rfi	1.49682	298.15	Effect of Temperature on the Change of Refractive Index on Mixing for Butyl Acetate + Aromatic Hydrocarbons
rfi	1.49580	298.15	Thermodynamic properties of (tetradecane + benzene, + toluene, + chlorobenzene, + bromobenzene, + anisole) binary mixtures at T = (298.15, 303.15, and 308.15) K

rfi	1.48980	298.15	Thermodynamic properties of (tetradecane + benzene, + toluene, + chlorobenzene, + bromobenzene, + anisole) binary mixtures at T = (298.15, 303.15, and 308.15) K
rfi	1.49280	303.15	Thermodynamic properties of (tetradecane + benzene, + toluene, + chlorobenzene, + bromobenzene, + anisole) binary mixtures at T = (298.15, 303.15, and 308.15) K
rfi	1.49670	298.15	Excess molar volumes of (octane + benzene, or toluene, or 1,3-xylene, or 1,3,5-trimethylbenzene) at temperatures between (298.15 and 328.15) K
rfi	1.49600	298.15	Excess and deviation properties for the binary mixtures of methylcyclohexane with benzene, toluene, p-xylene, mesitylene, and anisole at T = (298.15, 303.15, and 308.15) K
rfi	1.49360	303.15	Excess and deviation properties for the binary mixtures of methylcyclohexane with benzene, toluene, p-xylene, mesitylene, and anisole at T = (298.15, 303.15, and 308.15) K

rfi	1.49130	308.15	Excess and deviation properties for the binary mixtures of methylcyclohexane with benzene, toluene, p-xylene, mesitylene, and anisole at T = (298.15, 303.15, and 308.15) K
rfi	1.50450	288.15	Excess molar volumes and refractive indices of (methoxybenzene + benzene, or toluene, or o-xylene, or m-xylene, or p-xylene, or mesitylene) binary mixtures between T = (288.15 to 303.15) K
rfi	1.49930	293.15	Excess molar volumes and refractive indices of (methoxybenzene + benzene, or toluene, or o-xylene, or m-xylene, or p-xylene, or mesitylene) binary mixtures between T = (288.15 to 303.15) K
rfi	1.49760	298.15	Excess molar volumes and refractive indices of (methoxybenzene + benzene, or toluene, or o-xylene, or m-xylene, or p-xylene, or mesitylene) binary mixtures between T = (288.15 to 303.15) K

rfi	1.49480		303.15	Excess molar volumes and refractive indices of (methoxybenzene + benzene, or toluene, or o-xylene, or m-xylene, or p-xylene, or mesitylene) binary mixtures between T = (288.15 to 303.15) K
rfi	1.50200		288.15	Densities, Refractive Indices, and Excess Properties of Binary Mixtures of 1,4-Dioxane with Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene at Temperatures from (288.15 to 318.15) K
rhol	865.00	kg/m3	293.00	KDB
rhol	861.03	kg/m3	298.15	Excess Molar volumes and Surface Tensions of Trimethylbenzene with Tetrahydrofuran Tetrachloromethane and Dimethylsulfoxide at 298.15 K
rhol	840.90	kg/m3	323.15	Densities and Dynamic Viscosities of Alicyclic Cyclohexane with Toluene, o-Xylene, and Mesitylene at T = (303.15 to 323.15) K and Atmospheric Pressure

rhol	845.10	kg/m3	318.15	Densities and Dynamic Viscosities of Alicyclic Cyclohexane with Toluene, o-Xylene, and Mesitylene at T = (303.15 to 323.15) K and Atmospheric Pressure	
rhol	849.30	kg/m3	313.15	Densities and Dynamic Viscosities of Alicyclic Cyclohexane with Toluene, o-Xylene, and Mesitylene at T = (303.15 to 323.15) K and Atmospheric Pressure	
rhol	853.30	kg/m3	308.15	Densities and Dynamic Viscosities of Alicyclic Cyclohexane with Toluene, o-Xylene, and Mesitylene at T = (303.15 to 323.15) K and Atmospheric Pressure	
rhol	857.40	kg/m3	303.15	Densities and Dynamic Viscosities of Alicyclic Cyclohexane with Toluene, o-Xylene, and Mesitylene at T = (303.15 to 323.15) K and Atmospheric Pressure	
rhol	859.70	kg/m3	298.20	Liquid-liquid equilibrium for methyl butyl ketone + o-, m-, p-cresol + water ternary systems and COSMO-SAC predictions	

rhol	826.60	kg/m3	333.15	Densities and volumetric properties of (N-acetylmorpholine + aromatic hydrocarbon) binary mixtures from T = (293.15 to 343.15) K
rhol	852.66	kg/m3	308.15	Acoustic and thermodynamic properties of binary mixtures of 1-nonanol with o-xylene, m-xylene, p-xylene, ethylbenzene and mesitylene at T = (298.15 and 308.15) K
rhol	861.03	kg/m3	298.15	Excess Molar Volumes and Surface Tensions of 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene with 1-Butanol, 2-Methyl-1-propanol, 2-Butanol, and 2-Methyl-2-propanol at 298.15 K
rhol	818.50	kg/m3	343.15	Densities and volumetric properties of (N-acetylmorpholine + aromatic hydrocarbon) binary mixtures from T = (293.15 to 343.15) K
rhol	834.70	kg/m3	323.15	Densities and volumetric properties of (N-acetylmorpholine + aromatic hydrocarbon) binary mixtures from T = (293.15 to 343.15) K
rhol	842.80	kg/m3	313.15	Densities and volumetric properties of (N-acetylmorpholine + aromatic hydrocarbon) binary mixtures from T = (293.15 to 343.15) K

rhol	856.90	kg/m3	303.15	Densities and volumetric properties of (N-acetylmorpholine + aromatic hydrocarbon) binary mixtures from T = (293.15 to 343.15) K
rhol	865.10	kg/m3	293.15	Densities and volumetric properties of (N-acetylmorpholine + aromatic hydrocarbon) binary mixtures from T = (293.15 to 343.15) K
rhol	845.80	kg/m3	318.15	Densities and Volumetric Properties of Binary Mixtures of Butyl Acrylate with Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene at Temperatures from 288.15 K to 318.15 K
rhol	849.71	kg/m3	313.15	Densities and Volumetric Properties of Binary Mixtures of Butyl Acrylate with Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene at Temperatures from 288.15 K to 318.15 K
rhol	853.63	kg/m3	308.15	Densities and Volumetric Properties of Binary Mixtures of Butyl Acrylate with Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene at Temperatures from 288.15 K to 318.15 K

rhol	857.54	kg/m3	303.15	Densities and Volumetric Properties of Binary Mixtures of Butyl Acrylate with Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene at Temperatures from 288.15 K to 318.15 K	
rhol	861.45	kg/m3	298.15	Densities and Volumetric Properties of Binary Mixtures of Butyl Acrylate with Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene at Temperatures from 288.15 K to 318.15 K	
rhol	865.37	kg/m3	293.15	Densities and Volumetric Properties of Binary Mixtures of Butyl Acrylate with Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene at Temperatures from 288.15 K to 318.15 K	
rhol	869.28	kg/m3	288.15	Densities and Volumetric Properties of Binary Mixtures of Butyl Acrylate with Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Mesitylene at Temperatures from 288.15 K to 318.15 K	

rhol	860.86	kg/m3	298.15	Acoustic and thermodynamic properties of binary mixtures of 1-nonanol with o-xylene, m-xylene, p-xylene, ethylbenzene and mesitylene at T = (298.15 and 308.15) K	
speedsl	1339.80	m/s	298.15	Physicochemical study of intermolecular interactions in 1,4-dioxane + aromatic hydrocarbons binary mixtures at different temperatures by using ultrasonic and viscometric methods	
speedsl	1360.40	m/s	293.15	Physicochemical study of intermolecular interactions in 1,4-dioxane + aromatic hydrocarbons binary mixtures at different temperatures by using ultrasonic and viscometric methods	
speedsl	1280.40	m/s	313.15	Physicochemical study of intermolecular interactions in 1,4-dioxane + aromatic hydrocarbons binary mixtures at different temperatures by using ultrasonic and viscometric methods	
speedsl	1300.20	m/s	308.15	Physicochemical study of intermolecular interactions in 1,4-dioxane + aromatic hydrocarbons binary mixtures at different temperatures by using ultrasonic and viscometric methods	

speedsl	1319.60	m/s	303.15	Physicochemical study of intermolecular interactions in 1,4-dioxane + aromatic hydrocarbons binary mixtures at different temperatures by using ultrasonic and viscometric methods
speedsl	1263.00	m/s	318.15	Physicochemical study of intermolecular interactions in 1,4-dioxane + aromatic hydrocarbons binary mixtures at different temperatures by using ultrasonic and viscometric methods
srf	0.03	N/m	308.15	Excess Molar Volumes and Surface Tensions of 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene with 1,1-Diethoxyethane and 2,2-Dimethoxypropane at (298.15, 308.15, and 313.15) K
srf	0.03	N/m	313.15	Densities and Surface Tensions of Trimethylbenzene + Dimethyl Carbonate or + Diethyl Carbonate at 298.15 K and 313.15 K
srf	0.03	N/m	298.15	Excess Molar Volumes and Surface Tensions of 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene with 1,1-Diethoxyethane and 2,2-Dimethoxypropane at (298.15, 308.15, and 313.15) K

srf	0.03	N/m	298.15	Densities and Surface Tensions of Trimethylbenzene + Dimethyl Carbonate or + Diethyl Carbonate at 298.15 K and 313.15 K
srf	0.03	N/m	313.15	Excess Molar Volumes and Surface Tensions of 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene with 1,1-Diethoxyethane and 2,2-Dimethoxypropane at (298.15, 308.15, and 313.15) K
srf	0.03	N/m	298.15	Excess Molar Volumes and Surface Tensions of 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene with Isopropyl Acetate and Isobutyl Acetate at (298.15, 308.15, and 313.15) K
srf	0.03	N/m	308.15	Excess Molar Volumes and Surface Tensions of 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene with Isopropyl Acetate and Isobutyl Acetate at (298.15, 308.15, and 313.15) K
srf	0.03	N/m	298.15	Densities, surface tensions, and derived surface thermodynamics properties of (trimethylbenzene + propyl acetate, or butyl acetate) from T = 298.15 K to 313.15 K

srf	0.03	N/m	298.15	Excess Molar Volumes and Surface Tensions of Trimethylbenzene + Ethylene Glycol Ester at 298.15 K and 313.15 K
srf	0.03	N/m	313.15	Densities, surface tensions, and derived surface thermodynamics properties of (trimethylbenzene + propyl acetate, or butyl acetate) from T = 298.15 K to 313.15 K
srf	0.03	N/m	308.15	Densities, surface tensions, and derived surface thermodynamics properties of (trimethylbenzene + propyl acetate, or butyl acetate) from T = 298.15 K to 313.15 K
srf	0.03	N/m	303.15	Densities, surface tensions, and derived surface thermodynamics properties of (trimethylbenzene + propyl acetate, or butyl acetate) from T = 298.15 K to 313.15 K
srf	0.03	N/m	313.15	Excess Molar Volumes and Surface Tensions of 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene with Isopropyl Acetate and Isobutyl Acetate at (298.15, 308.15, and 313.15) K
srf	0.03	N/m	313.15	Excess Molar Volumes and Surface Tensions of Trimethylbenzene + Ethylene Glycol Ester at 298.15 K and 313.15 K

tcondl	0.14	W/m×K	296.36	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons	
tcondl	0.14	W/m×K	296.53	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons	
tcondl	0.14	W/m×K	296.66	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons	
tcondl	0.13	W/m×K	313.44	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons	
tcondl	0.13	W/m×K	313.60	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons	

tcondl	0.13	W/m×K	313.73	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons
tcondl	0.13	W/m×K	331.99	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons
tcondl	0.14	W/m×K	277.16	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons
tcondl	0.13	W/m×K	332.28	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons
tcondl	0.14	W/m×K	277.04	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons

tcondl	0.14	W/m×K	258.95	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons	
tcondl	0.14	W/m×K	258.83	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons	
tcondl	0.14	W/m×K	258.66	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons	
tcondl	0.14	W/m×K	276.88	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons	
tcondl	0.13	W/m×K	332.16	Thermal Conductivity and Thermal Diffusivity of Twenty-Nine Liquids: Alkenes, Cyclic (Alkanes, Alkenes, Alkadienes, Aromatics), and Deuterated Hydrocarbons	

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	8.58665e+01
Coeff. B	-8.51220e+03
Coeff. C	-1.03429e+01
Coeff. D	5.70952e-06
Temperature range (K), min.	228.46
Temperature range (K), max.	637.38

Sources

Estimated Solubility Method:	http://pubs.acs.org/doi/suppl/10.1021/ci034243x/suppl_file/ci034243xsi20040112_053635.txt
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C108678&Units=SI
Excess Molar Volumes and Surface Tensions of 1,2,4- Trimethylbenzene and 1,3,5- Trimethylbenzene with 1,1-Diethoxyethane and 2,2-Dimethoxypropane at (298.15, 308.15, and 318.15) K:	https://www.doi.org/10.1021/je060490w
Physicochemical study of intermolecular interactions in (1,4-dioxane + aromatic hydrocarbons) binary mixtures at different temperatures by using ultrasonic and viscometric methods:	https://www.doi.org/10.1016/j.jct.2017.01.016
Solubility of 2-Ethylanthraquinone in Binary Mixtures of Oligooxymethylene Dimethyl Ethers with Polymerization Number of CH2O Group = 2, 3, and 4 from 298.15 to 348.15 K:	https://www.doi.org/10.1021/acs.jced.6b00334
Liquid–Liquid Equilibrium Measurements for Ternary System of Hexadecane + 1,3,5-Trimethylbenzene + N-Methyl-2-pyrrolidone:	https://www.doi.org/10.1021/je050513r
Excess Molar Volumes and Surface Tensions of 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene with 1-Butanol, 2-Methyl-1-propanol, 2-Butanol, and 2-Methyl-2-propanol at 298.15 K:	https://www.doi.org/10.1021/je049807n
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Refractive Indices of Binary Mixtures of Tetrahydrofuran with Aromatic Hydrocarbon at Temperatures from (288.15 to 318.15) K:	https://www.doi.org/10.1021/je700564c
Thermodynamic properties of (tetradecane + benzene, + toluene, + chlorobenzene, + bromobenzene, + anisole) binary mixtures at T = (298.15, 303.15, and 308.15) K:	https://www.doi.org/10.1016/j.jct.2005.10.022
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Solubility of hydrofluorocarbons in aromatic solvents and alcohols:	https://www.doi.org/10.1016/j.fluid.2012.09.013
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Determination of Henry's Law Constants Using Internal Standards with Benchmark Values:	https://www.doi.org/10.1021/je3010535
Excess molar volumes of (acetophenone + benzene, or toluene, or p-xylene, or 1,3,5-trimethylbenzene) at temperatures (298.15 and 328.15) K:	https://www.doi.org/10.1016/j.jct.2004.11.023
Densities and Dynamic Viscosities of Alicyclic Cyclohexane with Toluene, o-Xylene, and Mesitylene at T = (303.15 to 323.15) K and Atmospheric Pressure:	https://www.doi.org/10.1021/acs.jced.7b01003
Thermodynamics of mixtures involving some (benzene derivatives + benzonitrile):	https://www.doi.org/10.1016/j.jct.2006.09.007
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KDB:	https://www.cheric.org/files/research/kdb/mol/mol664.mol
Excess Molar Volumes and Surface Tensions of 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene with Isopropyl Acetate and Isobutyl Acetate at (298.15, 308.15, and 313.15) K:	https://www.doi.org/10.1021/je800046k
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
Excess molar volumes and refractive indices of (methoxybenzene + benzene, or toluene, or o-xylene, or m-xylene, or p-xylene, or mesitylene) binary mixtures between T = (288.15 to 303.15) K:	https://www.doi.org/10.1016/j.jct.2006.02.001

Measurement of activity coefficients at infinite dilution of organic solutes in the ionic liquid	https://www.doi.org/10.1016/j.jct.2013.10.026
Excess Molar volumes and Surface Tensions of Trimethylbenzene with	https://www.doi.org/10.1021/je0497294
Excess Enthalpies of Dichloromethane	https://www.doi.org/10.1021/je700414c
(N-Methylformamide or N-Methylacetamide) + Aromatic	https://www.doi.org/10.1021/je060137q
Carbonate + Diethyl Carbonate at 293.15 K and 313.15 K:	https://www.doi.org/10.1021/je7000254
Excess and deviation properties for the binary mixtures of methylcyclohexane	https://www.doi.org/10.1016/j.jct.2005.12.005
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Densities, Viscosities, Refractive Indices, and	https://www.doi.org/10.1007/s10765-005-8096-3
Refractive Index on Mixing for Butyl	http://link.springer.com/article/10.1007/BF02311772
Liquid-liquid equilibria for ternary	https://www.doi.org/10.1016/j.fluid.2016.01.005
KDB Pure (Korean Thermophysical	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=664
Excess molar volumes of (octane +	https://www.doi.org/10.1016/j.jct.2007.10.010
Shear Viscosity of Mixtures of	https://www.doi.org/10.1021/je800439e

Legend

af:	Acentric Factor
affp:	Proton affinity
basg:	Gas basicity
chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
dm:	Dipole Moment
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hcg:	Heat of Combustion, Gross form
hcn:	Heat of Combustion, Net Form
hf:	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
pc:	Critical Pressure
pvap:	Vapor pressure
rfi:	Refractive Index
rhol:	Liquid Density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
sg:	Molar entropy at standard conditions
sl:	Liquid phase molar entropy at standard conditions
speedsl:	Speed of sound in fluid
srf:	Surface Tension
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tcondl:	Liquid thermal conductivity
tf:	Normal melting (fusion) point
tt:	Triple Point Temperature
vc:	Critical Volume