

Phenol, 2-methyl-

Other names:	1-Hydroxy-2-methylbenzene
	1-Methyl-2-hydroxybenzene
	2-Cresol
	2-Hydroxytoluene
	2-METHYLPHENOL
	NSC 23076
	O-CRESYLIC ACID
	O-HYDROXYTOLUENE
	Orthocresol
	Rcra waste number U052
	o-Cresol
	o-Kresol
	o-Methylphenol
	o-Methylphenylol
	o-Oxytoluene
	o-Toluol
	ortho-cresol
	ortho-hydroxytoluene
Inchi:	InChI=1S/C7H8O/c1-6-4-2-3-5-7(6)8/h2-5,8H,1H3
InchiKey:	QWVGKYNOKOFNN-UHFFFAOYSA-N
Formula:	C7H8O
SMILES:	Cc1ccccc1O
Mol. weight [g/mol]:	108.14
CAS:	95-48-7

Physical Properties

Property code	Value	Unit	Source
af	0.4330		KDB
affp	832.00 ± 8.00	kJ/mol	NIST Webbook
basg	800.00 ± 8.00	kJ/mol	NIST Webbook
chl	-3696.00	kJ/mol	NIST Webbook
chs	-3693.60 ± 0.42	kJ/mol	NIST Webbook
chs	-3697.00	kJ/mol	NIST Webbook
chs	-3693.30 ± 1.00	kJ/mol	NIST Webbook
dm	1.60	debye	KDB
gf	-33.00	kJ/mol	KDB
hf	-128.30 ± 0.88	kJ/mol	NIST Webbook

hf	-128.70	kJ/mol	KDB
hf	-128.60 ± 0.92	kJ/mol	NIST Webbook
hfl	-202.00	kJ/mol	NIST Webbook
hfs	-204.60 ± 0.92	kJ/mol	NIST Webbook
hfs	-204.30	kJ/mol	NIST Webbook
hfus	13.71	kJ/mol	Joback Method
hsub	73.70 ± 0.50	kJ/mol	NIST Webbook
hsub	76.00	kJ/mol	NIST Webbook
hsub	76.02 ± 0.75	kJ/mol	NIST Webbook
hsub	76.00	kJ/mol	NIST Webbook
hvap	44.89	kJ/mol	NIST Webbook
ie	8.48	eV	NIST Webbook
ie	8.50	eV	NIST Webbook
ie	8.14	eV	NIST Webbook
ie	8.24 ± 0.02	eV	NIST Webbook
ie	8.93	eV	NIST Webbook
ie	8.46 ± 0.06	eV	NIST Webbook
log10ws	-0.62		Aqueous Solubility Prediction Method
log10ws	-0.62		Estimated Solubility Method
logp	1.701		Crippen Method
mcvol	91.600	ml/mol	McGowan Method
nfpaf	%!d(float64=2)		KDB
nfpah	%!d(float64=2)		KDB
pc	5010.00	kPa	KDB
pc	4863.60 ± 303.98	kPa	NIST Webbook
pc	4170.00 ± 39.22	kPa	NIST Webbook
pc	5005.46 ± 70.92	kPa	NIST Webbook
rinpol	1059.00		NIST Webbook
rinpol	1034.00		NIST Webbook
rinpol	1054.00		NIST Webbook
rinpol	1077.00		NIST Webbook
rinpol	1072.00		NIST Webbook
rinpol	1053.00		NIST Webbook
rinpol	1054.00		NIST Webbook
rinpol	1058.00		NIST Webbook
rinpol	1060.00		NIST Webbook
rinpol	1034.00		NIST Webbook
rinpol	1030.00		NIST Webbook
rinpol	1033.00		NIST Webbook
rinpol	1052.00		NIST Webbook
rinpol	1053.00		NIST Webbook
rinpol	1027.00		NIST Webbook
rinpol	1038.00		NIST Webbook

rinpol	1015.00	NIST Webbook
rinpol	1076.00	NIST Webbook
rinpol	1076.00	NIST Webbook
rinpol	1024.00	NIST Webbook
rinpol	1024.00	NIST Webbook
rinpol	1058.00	NIST Webbook
rinpol	1051.00	NIST Webbook
rinpol	1057.00	NIST Webbook
rinpol	1068.00	NIST Webbook
rinpol	1077.00	NIST Webbook
rinpol	1053.00	NIST Webbook
rinpol	1044.00	NIST Webbook
rinpol	1044.00	NIST Webbook
rinpol	1030.00	NIST Webbook
rinpol	1030.00	NIST Webbook
rinpol	1030.00	NIST Webbook
rinpol	1044.00	NIST Webbook
rinpol	1050.00	NIST Webbook
rinpol	1037.00	NIST Webbook
rinpol	1040.00	NIST Webbook
rinpol	1053.00	NIST Webbook
rinpol	1066.00	NIST Webbook
rinpol	1079.00	NIST Webbook
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rinpol	1063.00	NIST Webbook
rinpol	1063.00	NIST Webbook
rinpol	1030.00	NIST Webbook
rinpol	1036.00	NIST Webbook
rinpol	1035.00	NIST Webbook
rinpol	1050.00	NIST Webbook
rinpol	1055.00	NIST Webbook
rinpol	1035.00	NIST Webbook
rinpol	170.20	NIST Webbook
rinpol	170.30	NIST Webbook
rinpol	172.54	NIST Webbook
rinpol	170.90	NIST Webbook
rinpol	171.30	NIST Webbook
rinpol	172.86	NIST Webbook
rinpol	172.86	NIST Webbook
rinpol	173.57	NIST Webbook
rinpol	172.86	NIST Webbook
rinpol	1035.00	NIST Webbook
rinpol	1030.00	NIST Webbook
rinpol	170.20	NIST Webbook

rinpol	1052.00	NIST Webbook
rinpol	1052.90	NIST Webbook
rinpol	1051.80	NIST Webbook
rinpol	1068.00	NIST Webbook
rinpol	1068.00	NIST Webbook
rinpol	1055.00	NIST Webbook
rinpol	1029.00	NIST Webbook
rinpol	1042.00	NIST Webbook
rinpol	1032.00	NIST Webbook
rinpol	1029.70	NIST Webbook
rinpol	1042.00	NIST Webbook
rinpol	1080.00	NIST Webbook
rinpol	1054.00	NIST Webbook
rinpol	1031.10	NIST Webbook
rinpol	1073.00	NIST Webbook
rinpol	1071.00	NIST Webbook
rinpol	1044.00	NIST Webbook
rinpol	1042.70	NIST Webbook
rinpol	1052.00	NIST Webbook
rinpol	1039.00	NIST Webbook
rinpol	1078.00	NIST Webbook
rinpol	1048.00	NIST Webbook
rinpol	1040.00	NIST Webbook
rinpol	1030.00	NIST Webbook
rinpol	1030.00	NIST Webbook
rinpol	1029.00	NIST Webbook
rinpol	1008.00	NIST Webbook
rinpol	1007.00	NIST Webbook
rinpol	1017.60	NIST Webbook
rinpol	1014.30	NIST Webbook
rinpol	1032.00	NIST Webbook
rinpol	1032.00	NIST Webbook
rinpol	1032.00	NIST Webbook
rinpol	1027.00	NIST Webbook
rinpol	1035.00	NIST Webbook
rinpol	1054.00	NIST Webbook
ripol	2004.00	NIST Webbook
ripol	2000.00	NIST Webbook
ripol	2011.00	NIST Webbook
ripol	2007.00	NIST Webbook
ripol	2010.00	NIST Webbook
ripol	1979.00	NIST Webbook
ripol	1979.00	NIST Webbook
ripol	1970.00	NIST Webbook

ripol	2000.00	NIST Webbook
ripol	1996.00	NIST Webbook
ripol	2012.00	NIST Webbook
ripol	2053.00	NIST Webbook
ripol	2030.00	NIST Webbook
ripol	1980.00	NIST Webbook
ripol	2010.00	NIST Webbook
ripol	2010.00	NIST Webbook
ripol	2025.00	NIST Webbook
ripol	2025.00	NIST Webbook
ripol	2012.00	NIST Webbook
ripol	1979.00	NIST Webbook
ripol	2014.00	NIST Webbook
ripol	1993.00	NIST Webbook
ripol	2007.00	NIST Webbook
ripol	2050.00	NIST Webbook
ripol	1995.00	NIST Webbook
ripol	2008.00	NIST Webbook
ripol	2030.00	NIST Webbook
ripol	2004.00	NIST Webbook
ripol	1980.00	NIST Webbook
ripol	2014.00	NIST Webbook
ripol	1995.00	NIST Webbook
ripol	2022.00	NIST Webbook
ripol	2019.00	NIST Webbook
ripol	1959.00	NIST Webbook
ripol	2011.00	NIST Webbook
ripol	2011.00	NIST Webbook
ripol	2000.00	NIST Webbook
ripol	2011.00	NIST Webbook
ripol	1969.00	NIST Webbook
ripol	2000.00	NIST Webbook
ripol	2000.00	NIST Webbook
ripol	2019.80	NIST Webbook
ripol	2017.19	NIST Webbook
ripol	2020.19	NIST Webbook
ripol	2014.43	NIST Webbook
ripol	2033.00	NIST Webbook
ripol	2011.00	NIST Webbook
ripol	2012.00	NIST Webbook
ripol	2002.00	NIST Webbook
ripol	2000.00	NIST Webbook
ripol	2021.00	NIST Webbook
ripol	1992.00	NIST Webbook

ripol	2000.00		NIST Webbook
ripol	1992.00		NIST Webbook
ss	165.44	J/mol×K	NIST Webbook
tb	463.95 ± 1.00	K	NIST Webbook
tb	464.20	K	NIST Webbook
tb	463.75 ± 2.00	K	NIST Webbook
tb	464.25 ± 1.00	K	NIST Webbook
tb	464.30 ± 0.60	K	NIST Webbook
tb	464.15 ± 0.50	K	NIST Webbook
tb	464.65 ± 1.50	K	NIST Webbook
tb	464.95 ± 1.50	K	NIST Webbook
tb	460.90 ± 0.70	K	NIST Webbook
tb	464.25 ± 0.35	K	NIST Webbook
tb	464.25 ± 0.30	K	NIST Webbook
tb	464.10 ± 0.30	K	NIST Webbook
tb	464.19	K	KDB
tc	697.60	K	KDB
tc	697.60 ± 0.40	K	NIST Webbook
tc	697.55 ± 0.23	K	NIST Webbook
tc	695.15 ± 2.00	K	NIST Webbook
tc	695.50 ± 3.00	K	NIST Webbook
tf	304.60	K	Aqueous Solubility Prediction Method
tf	302.90	K	KDB
tf	302.90 ± 0.15	K	NIST Webbook
tf	302.55 ± 0.50	K	NIST Webbook
tf	303.60 ± 0.30	K	NIST Webbook
tf	303.75 ± 0.20	K	NIST Webbook
tf	302.65 ± 0.40	K	NIST Webbook
tf	303.70 ± 0.50	K	NIST Webbook
tf	303.55 ± 0.50	K	NIST Webbook
tf	303.50 ± 0.20	K	NIST Webbook
tf	303.55 ± 0.25	K	NIST Webbook
tf	304.09 ± 0.10	K	NIST Webbook
tf	304.09 ± 0.05	K	NIST Webbook
tf	304.05 ± 0.30	K	NIST Webbook
tf	304.14 ± 0.05	K	NIST Webbook
tf	304.00 ± 0.30	K	NIST Webbook
tf	303.45 ± 0.40	K	NIST Webbook
tf	304.15	K	Liquid pharmaceuticals formulation by eutectic formation
tt	304.20 ± 0.02	K	NIST Webbook
vc	0.282	m3/kmol	KDB
zc	0.2435810		KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	214.11	J/mol×K	581.77	Joback Method
cpg	222.53	J/mol×K	620.08	Joback Method
cpg	184.27	J/mol×K	466.86	Joback Method
cpg	195.06	J/mol×K	505.16	Joback Method
cpg	204.98	J/mol×K	543.47	Joback Method
cpg	237.56	J/mol×K	696.68	Joback Method
cpg	230.32	J/mol×K	658.38	Joback Method
cpl	233.60	J/mol×K	313.00	NIST Webbook
cpl	225.90	J/mol×K	283.00	NIST Webbook
cps	154.56	J/mol×K	298.15	NIST Webbook
dvisc	0.0065750	Pa×s	303.15	Viscosity, Gibbs Free Energy, and Refractive Indices for Binary Mixtures of o-Cresol + Poly(ethylene glycols) at T = 288.15-308.15 K and 96.5 kPa
dvisc	0.0096800	Pa×s	293.15	Viscosity, Gibbs Free Energy, and Refractive Indices for Binary Mixtures of o-Cresol + Poly(ethylene glycols) at T = 288.15-308.15 K and 96.5 kPa
dvisc	0.0077600	Pa×s	298.15	Viscosity, Gibbs Free Energy, and Refractive Indices for Binary Mixtures of o-Cresol + Poly(ethylene glycols) at T = 288.15-308.15 K and 96.5 kPa

dvisc	0.0055660	Pa×s	308.15	Viscosity, Gibbs Free Energy, and Refractive Indices for Binary Mixtures of o-Cresol + Poly(ethylene glycols) at T = 288.15-308.15 K and 96.5 kPa
dvisc	0.0132800	Pa×s	288.15	Viscosity, Gibbs Free Energy, and Refractive Indices for Binary Mixtures of o-Cresol + Poly(ethylene glycols) at T = 288.15-308.15 K and 96.5 kPa
hfust	15.82	kJ/mol	304.20	NIST Webbook
hfust	14.80	kJ/mol	305.40	NIST Webbook
hfust	15.82	kJ/mol	304.20	NIST Webbook
hfust	13.94	kJ/mol	303.00	NIST Webbook
hfust	14.80	kJ/mol	304.05	NIST Webbook
hfust	15.82	kJ/mol	304.20	NIST Webbook
hfust	14.80	kJ/mol	304.10	NIST Webbook
hfust	15.90	kJ/mol	304.10	NIST Webbook
hsubt	76.00 ± 0.80	kJ/mol	288.00	NIST Webbook
hsubt	74.80	kJ/mol	288.00	NIST Webbook
hvapt	46.20	kJ/mol	494.50	NIST Webbook
hvapt	44.00	kJ/mol	573.50	NIST Webbook
hvapt	51.30	kJ/mol	428.00	NIST Webbook
hvapt	48.20	kJ/mol	438.50	NIST Webbook
hvapt	45.19	kJ/mol	464.10	KDB
hvapt	58.50	kJ/mol	356.50	NIST Webbook
hvapt	50.10	kJ/mol	434.50	NIST Webbook
rfi	1.54680		293.15	Excess Gibbs' energies of the binary mixtures formed by N,N-dimethylformamide with xylenes and cresols at 95.1 kPa

rfi	1.53860	308.15	Activity Coefficients at Infinite Dilution and Excess Molar Volumes in Binary Mixtures Containing Normal Alkanes (Nonane, Decane, Undecane, or Dodecane) and Cresols (2-Methylphenol or 3-Methylphenol)
rfi	1.54400	298.15	Densities, Speeds of Sound, and Refractive Indices of Binary Mixtures of Decan-1-ol with Anisole, o-Cresol, m-Cresol, and p-Cresol at T = (298.15, 303.15, and 308.15) K
rfi	1.54099	303.15	Densities, Speeds of Sound, and Refractive Indices of Binary Mixtures of Decan-1-ol with Anisole, o-Cresol, m-Cresol, and p-Cresol at T = (298.15, 303.15, and 308.15) K
rfi	1.53699	308.15	Densities, Speeds of Sound, and Refractive Indices of Binary Mixtures of Decan-1-ol with Anisole, o-Cresol, m-Cresol, and p-Cresol at T = (298.15, 303.15, and 308.15) K
rfi	1.54680	298.15	Activity coefficients of the binary mixtures of a-cresol or p-cresol with C I-C4 aliphatic alcohols near ambient pressure

rfi	1.54670		293.15	Bubble points of some binary mixtures formed by o-cresol at 95.75 kPa
rfi	1.54670		298.15	Excess Gibbs energies of binary mixtures formed by nitrobenzene with selected compounds at 94.95 kPa
rhoI	1037.05	kg/m3	303.15	Experimental Densities and Speeds of Sound of Substituted Phenols and Their Modeling with the Prigogine Flory Patterson Model
rhoI	1005.97	kg/m3	338.15	Experimental Densities and Speeds of Sound of Substituted Phenols and Their Modeling with the Prigogine Flory Patterson Model
rhoI	1010.46	kg/m3	333.15	Experimental Densities and Speeds of Sound of Substituted Phenols and Their Modeling with the Prigogine Flory Patterson Model
rhoI	1014.93	kg/m3	328.15	Experimental Densities and Speeds of Sound of Substituted Phenols and Their Modeling with the Prigogine Flory Patterson Model
rhoI	1019.39	kg/m3	323.15	Experimental Densities and Speeds of Sound of Substituted Phenols and Their Modeling with the Prigogine Flory Patterson Model
rhoI	1028.00	kg/m3	313.00	KDB

rhoI	1028.25	kg/m3	313.15	Experimental Densities and Speeds of Sound of Substituted Phenols and Their Modeling with the Prigogine Flory Patterson Model
rhoI	1032.64	kg/m3	308.15	Experimental Densities and Speeds of Sound of Substituted Phenols and Their Modeling with the Prigogine Flory Patterson Model
rhoI	1001.46	kg/m3	343.15	Experimental Densities and Speeds of Sound of Substituted Phenols and Their Modeling with the Prigogine Flory Patterson Model
rhoI	1041.41	kg/m3	298.15	Experimental Densities and Speeds of Sound of Substituted Phenols and Their Modeling with the Prigogine Flory Patterson Model
rhoI	1045.77	kg/m3	293.15	Experimental Densities and Speeds of Sound of Substituted Phenols and Their Modeling with the Prigogine Flory Patterson Model
rhoI	1036.94	kg/m3	303.15	Vapor-Liquid Equilibria in Ternary Systems of Toluene or Octane + Phenols + Water
rhoI	1032.73	kg/m3	308.15	Liquid-Liquid(-Liquid) Equilibria in Ternary Systems of Aliphatic Hydrocarbons (Heptane or Octane) + Phenols + Water

rhoI	1032.73	kg/m3	308.15	Liquid-Liquid Equilibria in Ternary Systems of Aromatic Hydrocarbons (Toluene or Ethylbenzene) + Phenols + Water
rhoI	1023.82	kg/m3	318.15	Thermodynamic and spectroscopic study of molecular interactions between ethanol and isomeric cresols
rhoI	1028.19	kg/m3	313.15	Thermodynamic and spectroscopic study of molecular interactions between ethanol and isomeric cresols
rhoI	1032.58	kg/m3	308.15	Thermodynamic and spectroscopic study of molecular interactions between ethanol and isomeric cresols
rhoI	1037.02	kg/m3	303.15	Thermodynamic and spectroscopic study of molecular interactions between ethanol and isomeric cresols
rhoI	1046.00	kg/m3	293.15	Bubble point measurements of binary mixtures formed by ethyl benzene with selected compounds at 95.35 kPa
rhoI	1018.80	kg/m3	323.20	Liquid-liquid equilibrium for methyl butyl ketone + o-, m-, p-cresol + water ternary systems and COSMO-SAC predictions

rho1	1023.83	kg/m3	318.15	Experimental Densities and Speeds of Sound of Substituted Phenols and Their Modeling with the Prigogine Flory Patterson Model
sfust	46.00	J/mol×K	303.00	NIST Webbook
sfust	49.00	J/mol×K	304.05	NIST Webbook
sfust	52.00	J/mol×K	304.20	NIST Webbook
srf	0.03	N/m	333.20	KDB

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbp	411.26	K	20.00	Measurement and correlation of isobaric vapour-liquid equilibrium for systems of o-cresol, m-cresol and 2, 6-dimethylphenol at 20.0 kPa

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.46886e+01
Coeff. B	-3.72850e+03
Coeff. C	-9.40520e+01
Temperature range (K), min.	352.96
Temperature range (K), max.	491.67

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/T + C*\ln(T) + D*T^2$
Coeff. A	1.36184e+02

Coeff. B	-1.20881e+04
Coeff. C	-1.74841e+01
Coeff. D	8.51800e-06
Temperature range (K), min.	304.19
Temperature range (K), max.	697.55

Datasets

Mass density, kg/m3

Temperature, K - Liquid	Pressure, kPa - Liquid	Mass density, kg/m3 - Liquid
313.20	1022.00	1027.5
313.20	2031.00	1028.1
313.20	3017.00	1028.7
313.20	4012.00	1029.2
313.20	5018.00	1029.8
313.20	6010.00	1030.4
313.20	7005.00	1030.9
313.20	8006.00	1031.5
313.20	9004.00	1032.0
313.20	10005.00	1032.6
323.16	1013.00	1018.7
323.16	2039.00	1019.3
323.16	3007.00	1019.9
323.16	4009.00	1020.5
323.16	5005.00	1021.1
323.16	6004.00	1021.7
323.16	6999.00	1022.2
323.16	8008.00	1022.8
323.16	9002.00	1023.4
323.16	10005.00	1024.0
333.10	1010.00	1009.9
333.10	2033.00	1010.5
333.10	3009.00	1011.1
333.10	4014.00	1011.8
333.10	5004.00	1012.4
333.10	5998.00	1013.0
333.10	7000.00	1013.6
333.10	8009.00	1014.2

333.10	9004.00	1014.8
333.10	10010.00	1015.4
343.06	1023.00	1000.8
343.06	2024.00	1001.6
343.06	3015.00	1002.2
343.06	4003.00	1002.9
343.06	5009.00	1003.6
343.06	6005.00	1004.2
343.06	7008.00	1004.8
343.06	8003.00	1005.5
343.06	8999.00	1006.1
343.06	10004.00	1006.7
352.99	1043.00	991.9
352.99	2000.00	992.6
352.99	3034.00	993.3
352.99	4015.00	994.0
352.99	5033.00	994.6
352.99	6007.00	995.3
352.99	7016.00	996.0
352.99	8006.00	996.7
352.99	9015.00	997.3
352.99	10014.00	998.0

Reference

<https://www.doi.org/10.1021/je400055v>

Sources

Liquid-Liquid(-Liquid) Equilibria in Ternary Systems of Aliphatic Hydrocarbons (Heptane, Octane, Nonane) with methyl isopropyl ketone: Equilibrium, correlations, and COSMO-RS predictions: Volumetric and ultrasonic behaviour of binary mixtures of 1-nonanol with the *o*-, *m*- and *p*-cresols and anisole at 293.15 and 313.15 K: Activity Coefficients at Infinite Dilution and Excess Molar Volumes in Binary Mixtures: Consistency Method: Alkanes (Nonane, Decane, Undecane, or Dodecane) and Cresols (2-Methylphenol or 3-Methylphenol): Liquid-Liquid Equilibrium for the Ternary Systems Methyl tert-Butyl ketone-liquid alcohols for the extraction of phenols from alkane using ethylhexylglycol in Ternary Systems of Toluene or Octane + Phenols + Water:

Liquid pharmaceuticals formulation by eutectic formation: Activity coefficients of the binary mixtures of *a*-cresol or *p*-cresol with C₁-C₄ aliphatic alcohols near ambient pressure:

<https://www.doi.org/10.1021/je1007923>

<https://www.doi.org/10.1016/j.jct.2017.07.033>

<http://pubs.acs.org/doi/abs/10.1021/ci990307l>

<https://www.doi.org/10.1016/j.jct.2010.10.025>

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>

<https://www.doi.org/10.1021/je049540s>

http://pubs.acs.org/doi/suppl/10.1021/ci034243x/suppl_file/ci034243xsi20040112_053635.txt

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C95487&Units=SI>

<https://www.doi.org/10.1021/acs.jced.6b00825>

<https://www.doi.org/10.1016/j.fluid.2016.03.003>

<https://www.doi.org/10.1021/je100888h>

<https://www.cheric.org/files/research/kdb/mol/mol867.mol>

<https://www.doi.org/10.1016/j.fluid.2017.05.009>

<https://www.doi.org/10.1016/j.fluid.2006.03.018>

Experimental Densities and Speeds of Sound of Substituted Phenols and Liquid-Liquid Equilibria in Ternary Systems of Aromatic Hydrocarbons (Toluene or Ethylbenzene) + Phenols + Water: Measurement, correlation and COSMO-SAC prediction of liquid-liquid phase equilibria in chemical systems, compounds in water or phenol + water, Henry's Law Constants and Infinite Dilution Activity Coefficients of Phenols, Cresols, o-Cresol, and Relative Indices of Binary Mixtures of Toluene/Heptane + Phenol, m-Cresol, p-Cresol, and 2,4-Dichlorophenol with water at 95.35 kPa: isomethyl ketone + cresols + water at 95.35 kPa: isomethyl ketone + 2-Methylphenol, 3-Methylphenol, and 4-Methylphenol: Experimental results and data correlation. Measurement and correlation of isobaric vapour-liquid equilibrium for binary mixtures of cresol, p-cresol and 2, liquid-liquid equilibrium for ternary mixtures of methyl isopropyl ketone and cresol, and p-cresol. Aqueous Solubility Prediction Method:

Bubble points of some binary mixtures formed by o-cresol at 95.75 kPa: Densities of Cresols and Linear Alkane Mixtures at High Pressure: Phase Equilibrium on Extraction Methylphenols from Aqueous Solution with 2,4-Dichlorophenol at 333.2 K modelling of ternary (liquid + liquid) equilibria for extraction of the binary mixtures formed from aqueous solution of phenol in chloroform, toluene and p-dichlorobenzene by phenol and carbon tetrachloride and their physical properties. Densities of binary mixtures formed by ethyl benzene with selected compounds at 95.35 kPa:

Excess parameters of binary mixtures of anisaldehyde with o-cresol, m-cresol and p-cresol at 95.35 kPa. Ternary systems: water + cresols + methyl butyl ketone at 298.15 K. Determination and correlation of liquid-liquid equilibria for the ternary systems spectroscopic study of molecular interactions. Cresol liquid-liquid equilibria for cresols: butyl ketone + o-, m-, p-cresol + water ternary systems and the COSMO-SAC Properties Databank): Liquid-liquid equilibria for toluene/heptane + phenol/cresols + vinylene glycol systems. Enthalpy, and Refractive Indices for Binary Mixtures of o-Cresol + Poly(ethylene glycols) at T = 288.15-308.15 K and 96.5 kPa:

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Legend

af:	Acentric Factor
affp:	Proton affinity
basg:	Gas basicity
chl:	Standard liquid enthalpy of combustion
chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
cps:	Solid phase heat capacity

dm:	Dipole Moment
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase enthalpy of formation at standard conditions
hfs:	Solid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hfust:	Enthalpy of fusion at a given temperature
hsub:	Enthalpy of sublimation at standard conditions
hsubt:	Enthalpy of sublimation 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
mccvol:	McGowan's characteristic volume
nfpaf:	NFPA Fire Rating
nfpah:	NFPA Health Rating
pc:	Critical Pressure
pvap:	Vapor pressure
rfi:	Refractive Index
rhof:	Liquid Density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
sfust:	Entropy of fusion at a given temperature
srf:	Surface Tension
ss:	Solid phase molar entropy at standard conditions
tb:	Normal Boiling Point Temperature
tbp:	Boiling point at given pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
tt:	Triple Point Temperature
vc:	Critical Volume
zc:	Critical Compressibility

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