Tetrahydropyran

Other names:	2H-Pyran, tetrahydro-
	Oxacyclohexane
	Oxane
	Pentamethylene oxide
	THP
	Tetrahydro-2H-pyran
	tetrahydropyrane
Inchi:	InChI=1S/C5H10O/c1-2-4-6-5-3-1/h1-5H2
InchiKey:	DHXVGJBLRPWPCS-UHFFFAOYSA-N
Formula:	C5H10O
SMILES:	C1CCOCC1
Mol. weight [g/mol]:	86.13
CAS:	142-68-7

Physical Properties

Property code	Value	Unit	Source
affp	822.80	kJ/mol	NIST Webbook
basg	799.10 ± 0.10	kJ/mol	NIST Webbook
basg	799.20	kJ/mol	NIST Webbook
basg	795.40	kJ/mol	NIST Webbook
chg	-3173.30 ± 0.96	kJ/mol	NIST Webbook
chl	-3137.60 ± 0.84	kJ/mol	NIST Webbook
chl	-3150.00 ± 6.30	kJ/mol	NIST Webbook
chl	-3141.90 ± 1.30	kJ/mol	NIST Webbook
gf	-62.74	kJ/mol	Joback Method
hf	-223.40 ± 1.50	kJ/mol	NIST Webbook
hf	-220.00 ± 3.00	kJ/mol	NIST Webbook
hf	-223.80 ± 1.00	kJ/mol	NIST Webbook
hfl	-255.00 ± 2.00	kJ/mol	NIST Webbook
hfus	7.45	kJ/mol	Joback Method
hvap	35.00	kJ/mol	NIST Webbook
hvap	34.90	kJ/mol	NIST Webbook
hvap	38.20 ± 1.10	kJ/mol	NIST Webbook
hvap	34.67	kJ/mol	NIST Webbook
ie	9.25 ± 0.01	eV	NIST Webbook
ie	9.16	eV	NIST Webbook
ie	9.24 ± 0.05	eV	NIST Webbook

ie	9.25 ± 0.01	eV	NIST Webbook
ie	9.26 ± 0.03	eV	NIST Webbook
ie	9.57	eV	NIST Webbook
ie	9.46	eV	NIST Webbook
ie	9.50	eV	NIST Webbook
ie	9.48	eV	NIST Webbook
log10ws	-0.03		Aqueous Solubility Prediction Method
log10ws	-0.03		Estimated Solubility Method
logp	1.187		Crippen Method
mcvol	76.320	ml/mol	McGowan Method
pc	4770.00 ± 14.18	kPa	NIST Webbook
rhoc	328.37 ± 0.48	kg/m3	NIST Webbook
rinpol	736.00		NIST Webbook
rinpol	740.00		NIST Webbook
rinpol	720.00		NIST Webbook
rinpol	740.00		NIST Webbook
rinpol	714.00		NIST Webbook
rinpol	689.00		NIST Webbook
rinpol	697.00		NIST Webbook
rinpol	709.00		NIST Webbook
rinpol	689.00		NIST Webbook
rinpol	690.00		NIST Webbook
rinpol	689.00		NIST Webbook
rinpol	714.00		NIST Webbook
rinpol	714.00		NIST Webbook
rinpol	729.00		NIST Webbook
rinpol	714.00		NIST Webbook
ripol	988.00		NIST Webbook
ripol	1010.00		NIST Webbook
ripol	930.00		NIST Webbook
ripol	930.00		NIST Webbook
ripol	965.00		NIST Webbook
ripol	972.00		NIST Webbook
ripol	969.00		NIST Webbook
tb	361.36	K	Vapor Liquid Equilibrium, Densities, and Interfacial Tensions of the System Ethanol + Tetrahydro-2H-pyran
tb	361.23	K	Study of tetrahydropyran-chlorobutane VLE using the a o and o o approaches
tb	361.00 ± 3.00	K	NIST Webbook
tb	361.20 ± 1.50	K	NIST Webbook

tb	361.35 ± 0.30	K	NIST Webbook
tb	361.15 ± 1.00	K	NIST Webbook
tb	361.05 ± 0.20	K	NIST Webbook
tb	361.00	K	NIST Webbook
tb	361.23	K	Study of isobaric vapour liquid equilibrium of some cyclic ethers with 1-chloropropane: Experimental results and SAFT-VR modelling
tb	361.20	K	NIST Webbook
tb	360.15 ± 1.00	K	NIST Webbook
tb	361.31	K	Experimental Isobaric Vapor-Liquid Equilibrium Data for Binary Mixtures of Cyclic Ethers with (1-Methylethyl)benzene
tc	572.20 ± 0.30	K	NIST Webbook
tf	226.82	K	Aqueous Solubility Prediction Method
tf	224.00 ± 0.10	K	NIST Webbook
tf	224.15 ± 1.00	K	NIST Webbook
tf	223.95 ± 0.30	K	NIST Webbook
vc	0.271	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	151.60	J/mol×K	433.96	Joback Method
cpg	126.39	J/mol×K	364.97	Joback Method
cpg	139.33	J/mol×K	399.46	Joback Method
cpg	194.46	J/mol×K	571.94	Joback Method
cpg	184.64	J/mol×K	537.44	Joback Method
cpg	174.24	J/mol×K	502.95	Joback Method
cpg	163.23	J/mol×K	468.45	Joback Method
cpl	140.60	J/mol×K	298.00	NIST Webbook

cpl	145.20	J/mol×K	293.15	Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Tetrahydropyran and + 2-Methyltetrahydrofuran at (293.15, 303.15, and 313.15) K
cpl	151.13	J/mol×K	297.62	NIST Webbook
cpl	143.40	J/mol×K	288.15	Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Tetrahydropyran and + 2-Methyltetrahydrofuran at (293.15, 303.15, and 313.15) K
cpl	164.20	J/mol×K	333.15	Thermophysical properties of dimethyl sulfoxide + cyclic and linear ethers at 308.15K Application of an extended cell model
cpl	147.80	J/mol×K	298.15	Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Tetrahydropyran and + 2-Methyltetrahydrofuran at (293.15, 303.15, and 313.15) K

cpl	150.20	J/mol×K	303.15	Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Tetrahydropyran and + 2-Methyltetrahydrofuran at (293.15, 303.15, and 313.15) K
cpl	159.10	J/mol×K	323.15	Thermophysical properties of dimethyl sulfoxide + cyclic and linear ethers at 308.15K Application of an extended cell model
cpl	152.60	J/mol×K	308.15	Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Tetrahydropyran and + 2-Methyltetrahydrofuran at (293.15, 303.15, and 313.15) K
cpl	156.00	J/mol×K	313.15	Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Tetrahydropyran and + 2-Methyltetrahydrofuran at (293.15, 303.15, and 313.15) K
cpl	149.70	J/mol×K	303.15	Thermophysical properties of dimethyl sulfoxide + cyclic and linear ethers at 308.15K Application of an extended cell model

cpl	143.90	J/mol×K	288.15	Thermophysical properties of dimethyl sulfoxide + cyclic and linear ethers at 308.15K Application of an extended cell model
cpl	146.30	J/mol×K	293.15	Thermophysical properties of dimethyl sulfoxide + cyclic and linear ethers at 308.15K Application of an extended cell model
cpl	147.90	J/mol×K	298.15	Thermophysical properties of dimethyl sulfoxide + cyclic and linear ethers at 308.15K Application of an extended cell model
cpl	157.60	J/mol×K	318.15	Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Tetrahydropyran and + 2-Methyltetrahydrofuran at (293.15, 303.15, and 313.15) K
cpl	151.70	J/mol×K	308.15	Thermophysical properties of dimethyl sulfoxide + cyclic and linear ethers at 308.15K Application of an extended cell model
cpl	154.30	J/mol×K	313.15	Thermophysical properties of dimethyl sulfoxide + cyclic and linear ethers at 308.15K Application of an extended cell model

cpl	156.50	J/mol×K	318.15	Thermophysical properties of dimethyl sulfoxide + cyclic and linear ethers at 308.15K Application of an extended cell model
cpl	159.90	J/mol×K	323.15	Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Tetrahydropyran and + 2-Methyltetrahydrofuran at (293.15, 303.15, and 313.15) K
cpl	161.60	J/mol×K	328.15	Thermophysical properties of dimethyl sulfoxide + cyclic and linear ethers at 308.15K Application of an extended cell model
cpl	149.21	J/mol×K	298.15	NIST Webbook
cpl	149.60	J/mol×K	298.15	NIST Webbook
dvisc	0.0010047	Pa×s	283.15	Excess Enthalpy, Excess Volume, Viscosity Deviation, and Speed of Sound Deviation for the Mixture Tetrahydropyran + 2,2,2-Trifluoroethanol at (283.15, 298.15, and 313.15) K
dvisc	0.0008090	Pa×s	298.15	Excess Enthalpy, Density, Viscosity, and Speed of Sound for the Mixture Tetrahydropyran + 1-Butanol at (283.15, 298.15 and, 313.15) K

dvisc	0.0010240	Pa×s	283.15	Excess Enthalpy, Density, Viscosity, and Speed of Sound for the Mixture Tetrahydropyran + 1-Butanol at (283.15, 298.15 and, 313.15) K
dvisc	0.0006494	Pa×s	313.15	Excess Enthalpy, Excess Volume, Viscosity Deviation, and Speed of Sound Deviation for the Mixture Tetrahydropyran + 2,2,2-Trifluoroethanol at (283.15, 298.15, and 313.15) K
dvisc	0.0008005	Pa×s	298.15	Excess Enthalpy, Excess Volume, Viscosity Deviation, and Speed of Sound Deviation for the Mixture Tetrahydropyran + 2,2,2-Trifluoroethanol at (283.15, 298.15, and 313.15) K
dvisc	0.0006278	Pa×s	313.15	Excess Enthalpy, Density, Viscosity, and Speed of Sound for the Mixture Tetrahydropyran + 1-Butanol at (283.15, 298.15 and, 313.15) K
hvapt	36.00	kJ/mol	293.00	NIST Webbook
hvapt	35.00	kJ/mol	280.50	NIST Webbook
hvapt	33.20	kJ/mol	373.50	NIST Webbook
hvapt	36.00	kJ/mol	323.50	NIST Webbook
hvapt	31.17	kJ/mol	361.00	NIST Webbook
hvapt	35.00	kJ/mol	317.50	NIST Webbook
kvisc	0.0000009	m2/s	298.15	Thermophysical Properties of Mixtures of Tetrahydropyran with Chlorobutanes

kvisc	0.0000011	m2/s	283.15	Experimental and predicted viscosities of binary mixtures of cyclic ethers with 1-chloropentane or 1-chlorohexane at 283.15, 298.15, and 313.15K	
kvisc	0.0000009	m2/s	298.15	Experimental and predicted viscosities of binary mixtures of cyclic ethers with 1-chloropentane or 1-chlorohexane at 283.15, 298.15, and 313.15K	
kvisc	0.0000008	m2/s	313.15	Experimental and predicted viscosities of binary mixtures of cyclic ethers with 1-chloropentane or 1-chlorohexane at 283.15, 298.15, and 313.15K	
kvisc	0.0000008	m2/s	313.15	Thermophysical Properties of Mixtures of Tetrahydropyran with Chlorobutanes	
pvap	1.13	kPa	260.07	Henry s Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethylether, Chloroethane, 1,1-Difluoroethane, and Hexane in Tetrahydropyran	

pvap	98.66	kPa	360.22	Henry s Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethylether, Chloroethane, 1,1-Difluoroethane, and Hexane in Tetrahydropyran
pvap	93.33	kPa	358.37	Henry s Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethylether, Chloroethane, 1,1-Difluoroethane, and Hexane in Tetrahydropyran
pvap	79.99	kPa	353.38	Henry s Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethylether, Chloroethane, 1,1-Difluoroethane, and Hexane in Tetrahydropyran

pvap	53.33	kPa	341.09	Henry s Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethylether, Chloroethane, 1,1-Difluoroethane, and Hexane in Tetrahydropyran
pvap	40.00	kPa	332.98	Henry s Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethylether, Chloroethane, 1,1-Difluoroethane, and Hexane in Tetrahydropyran
pvap	10.23	kPa	300.01	Henry s Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethylether, Chloroethane, 1,1-Difluoroethane, and Hexane in Tetrahydropyran

pvap	6.30	kPa	290.00	Henry s Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethylether, Chloroethane, 1,1-Difluoroethane, and Hexane in Tetrahydropyran
pvap	6.28	kPa	289.94	Henry s Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethylether, Chloroethane, 1,1-Difluoroethane, and Hexane in Tetrahydropyran
pvap	3.70	kPa	279.82	Henry s Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethylether, Chloroethane, 1,1-Difluoroethane, and Hexane in Tetrahydropyran

pvap	2.16	kPa	270.28	Henry s Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethylether, Chloroethane, 1,1-Difluoroethane, and Hexane in Tetrahydropyran
pvap	66.66	kPa	347.72	Henry s Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethylether, Chloroethane, 1,1-Difluoroethane, and Hexane in Tetrahydropyran
pvap	9.53	kPa	298.15	Thermodynamic Properties of Binary Mixtures of Tetrahydropyran with Anilines at 308.15 K
pvap	18.93	kPa	313.73	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols

pvap	15.69	kPa	309.21	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	
pvap	13.15	kPa	305.40	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	
pvap	10.96	kPa	301.11	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	
pvap	8.99	kPa	296.98	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	
pvap	6.90	kPa	291.32	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	

pvap	4.98	kPa	284.90	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols
pvap	3.49	kPa	278.41	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols
pvap	2.70	kPa	273.74	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols
pvap	33.95	kPa	328.15	Isothermal (vapour + liquid) equilibrium of (cyclic ethers + chlorohexane) mixtures: Experimental results and SAFT modelling
pvap	9.56	kPa	298.15	Isothermal (vapour + liquid) equilibrium of (cyclic ethers + chlorohexane) mixtures: Experimental results and SAFT modelling
pvap	18.66	kPa	313.15	Isothermal vapour-liquid equilibrium for cyclic ethers with 1-chloropentane
pvap	9.56	kPa	298.15	Isothermal vapour-liquid equilibrium for cyclic ethers with 1-chloropentane

pvap	0.98	kPa	257.96	Henry s Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethylether, Chloroethane, 1,1-Difluoroethane, and Hexane in Tetrahydropyran
pvap	33.95	kPa	328.15	Isothermal vapour-liquid equilibrium for cyclic ethers with 1-chloropentane
rfi	1.42000		298.15	Experimental determination and theoretical modeling of the vapor liquid equilibrium and densities of the binary system butan-2-ol + tetrahydro-2H-pyran
rfi	1.41864		298.15	(Vapour + liquid) equilibria for binary and ternary mixtures of 2-propanol, tetrahydropyran, and 2,2,4-trimethylpentane at P = 101.3 kPa
rfi	1.42004		298.15	Atmospheric densities and interfacial tensions for 1-alkanol (1-butanol to 1-octanol) + water and ether (MTBE, ETBE, DIPE, TAME and THP) + water demixed mixtures.
rfi	1.42000		298.15	Vapor-liquid equilibrium and interfacial tensions of the system ethanol + hexane + tetrahydro-2H-Pyran

rfi	1.42000		298.15	Experimental determination and theoretical modeling of the vapor-liquid equilibrium and surface tensions of hexane + tetrahydro-2H-pyran
rhol	879.13	kg/m3	298.15	Thermodynamic Properties of Ternary Liquid Mixtures Containing o-Chlorotoluene: Excess Molar Volumes and Excess Isentropic Compressibilities
rhol	879.00	kg/m3	298.15	Isobaric Vapor-Liquid Equilibria for Tetrahydropyran and Alcohol Systems
rhol	868.83	kg/m3	308.15	Thermodynamic Properties of Ternary Liquid Mixtures Containing o-Chlorotoluene: Excess Molar Volumes and Excess Isentropic Compressibilities
rhol	873.99	kg/m3	303.15	Thermodynamic Properties of Ternary Liquid Mixtures Containing o-Chlorotoluene: Excess Molar Volumes and Excess Isentropic Compressibilities
rhol	878.81	kg/m3	298.15	Surface Tension of Mixtures of Tetrahydrofuran or Tetrahydropyran with Isomeric Chlorobutanes
rhol	878.80	kg/m3	298.15	Vapour liquid equilibrium of cyclic ethers with 1-chlorohexane: Experimental results and UNIFAC predictions

rhol	868.83	kg/m3	308.15	Densities, Speeds of Sound, Excess Molar Enthalpies, and Heat Capacities of o-Chlorotoluene and Cyclic Ether Mixtures	
rhol	873.99	kg/m3	303.15	Densities, Speeds of Sound, Excess Molar Enthalpies, and Heat Capacities of o-Chlorotoluene and Cyclic Ether Mixtures	
rhol	879.13	kg/m3	298.15	Densities, Speeds of Sound, Excess Molar Enthalpies, and Heat Capacities of o-Chlorotoluene and Cyclic Ether Mixtures	
rhol	863.43	kg/m3	313.15	Volumetric Properties of Binary Mixtures of N-Ethylformamide with Tetrahydropyran, 2-Pentanone, and Propylacetate from (293.15 to 313.15) K	
rhol	868.67	kg/m3	308.15	Volumetric Properties of Binary Mixtures of N-Ethylformamide with Tetrahydropyran, 2-Pentanone, and Propylacetate from (293.15 to 313.15) K	
rhol	873.79	kg/m3	303.15	Volumetric Properties of Binary Mixtures of N-Ethylformamide with Tetrahydropyran, 2-Pentanone, and Propylacetate from (293.15 to 313.15) K	

rhol	878.95	kg/m3	298.15	Volumetric Properties of Binary Mixtures of N-Ethylformamide with Tetrahydropyran, 2-Pentanone, and Propylacetate from (293.15 to 313.15) K	
rhol	884.08	kg/m3	293.15	Volumetric Properties of Binary Mixtures of N-Ethylformamide with Tetrahydropyran, 2-Pentanone, and Propylacetate from (293.15 to 313.15) K	
rhol	878.82	kg/m3	298.15	Study of the Surface Tension of Chlorocyclohexane or Bromocyclohexane with Some Cyclic Ethers	
rhol	873.99	kg/m3	303.15	Heat capacities of binary and ternary mixtures containing o-chlorotoluene, cyclic ether and aromatic hydrocarbons	
rhol	868.75	kg/m3	308.15	Thermodynamic Studies of Molecular Interactions in Mixtures Containing Tetrahydropyran, 1,4-dioxane and Cyclic ketones	
rhol	873.91	kg/m3	303.15	Thermodynamic Studies of Molecular Interactions in Mixtures Containing Tetrahydropyran, 1,4-dioxane and Cyclic ketones	

rhol	879.09	kg/m3	298.15	Thermodynamic Studies of Molecular Interactions in Mixtures Containing Tetrahydropyran, 1,4-dioxane and Cyclic ketones	
rhol	884.23	kg/m3	293.15	Thermodynamic Studies of Molecular Interactions in Mixtures Containing Tetrahydropyran, 1,4-dioxane and Cyclic ketones	
rhol	868.81	kg/m3	308.15	Excess molar volumes and isentropic compressibilities changes of mixing of tetrahydropyran + benzene + cyclo or n-alkanes ternary mixtures at 308.15 K	
rhol	868.83	kg/m3	308.15	Excess molar volumes and excess isentropic compressibilities of binary and ternary mixtures of o-chlorotoluene with cyclic ether and amides or cyclohexane at different temperatures	
rhol	879.13	kg/m3	298.15	Excess molar volumes and excess isentropic compressibilities of binary and ternary mixtures of o-chlorotoluene with cyclic ether and amides or cyclohexane at different temperatures	

rhol	879.14	kg/m3	298.15	Thermodynamic and topological investigations of ternary mixtures with o-toluidine, tetrahydropyran, and picolines: Excess molar volume and excess isentropic compressibility
rhol	868.83	kg/m3	308.15	Heat capacities of binary and ternary mixtures containing o-chlorotoluene, cyclic ether and aromatic hydrocarbons
rhol	879.16	kg/m3	298.15	Isothermal Vapor-Liquid Equilibria and Excess Gibbs Energies for Binary Mixtures of Cyclic Ethers with 1,2-Dichloroethane
rhol	879.13	kg/m3	298.15	Heat capacities of binary and ternary mixtures containing o-chlorotoluene, cyclic ether and aromatic hydrocarbons
rhol	873.99	kg/m3	303.15	Excess molar volumes and excess isentropic compressibilities of binary and ternary mixtures of o-chlorotoluene with cyclic ether and amides or cyclohexane at different temperatures
speedsl	1246.83	m/s	303.15	Topological investigations of molecular interactions of binary and ternary mixtures containing tetrahydropyran, o-toluidine and N-methyl formamide

speedsl	1269.88	m/s	298.15	Topological investigations of molecular interactions of binary and ternary mixtures containing tetrahydropyran, o-toluidine and N-methyl formamide	
speedsl	1224.47	m/s	308.15	Thermodynamic properties of binary mixtures of tetrahydropyran with pyridine and isomeric picolines: Excess molar volumes, excess molar enthalpies and excess isentropic compressibilities	
speedsl	1246.83	m/s	303.15	Thermodynamic properties of binary mixtures of tetrahydropyran with pyridine and isomeric picolines: Excess molar volumes, excess molar enthalpies and excess isentropic compressibilities	
speedsl	1269.88	m/s	298.15	Thermodynamic properties of binary mixtures of tetrahydropyran with pyridine and isomeric picolines: Excess molar volumes, excess molar enthalpies and excess isentropic compressibilities	
speedsl	1272.00	m/s	298.15	Isentropic Compressibilities Changes of Mixing of Tetrahydropyran and Aromatic Hydrocarbons Ternary Mixtures at 308.15 K	

speedsl	1224.47	m/s	308.15	Topological investigations of molecular interactions of binary and ternary mixtures containing tetrahydropyran, o-toluidine and N-methyl formamide

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	1.03083e+02
Coeff. B	-7.40540e+03
Coeff. C	-1.35698e+01
Coeff. D	1.49079e-05
Temperature range (K), min.	273.15
Temperature range (K), max.	314.15

Datasets

Refractive index (Na D-line)

Temperature, K - Liquid	Pressure, kPa - Liquid	Refractive index (Na D-line) - Liquid
298.15	101.33	1.4186
293.15	101.00	1.39161
303.15	101.00	1.3866
313.15	101.00	1.38143
323.15	101.00	1.37627
293.15	101.00	1.42109
303.15	101.00	1.41599
313.15	101.00	1.41092
323.15	101.00	1.40554

Sources

Partial molar volumes of organic solutes in water. XXII. Cyclic ethers at temperatures (298 to 573) K and pressures up to 30 MPa:	https://www.doi.org/10.1016/j.jct.2009.11.005
Aqueous Solubility Prediction Method:	http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa
(Vapour + liquid) equilibria for binary and ternary mixtures of 2-propanol, tetrahydropyran, and 2,2,4-trimethylpentane at P = 101.3 kPa:	https://www.doi.org/10.1016/j.jct.2011.10.025
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Isentropic Compressibilities Changes of Mixing of Tetrahydropyran and Aromatic Hydrocarbons Ternary Mixtures at 308.15 K:	https://www.doi.org/10.1007/s10765-011-0997-8
Atmospheric densities and interfacial tensions for 1-alkanol (1-butanol to 1-octanol) + water and ether (MTBE, ETBE, DIPE, TAME and THP) + water demixed mixtures:	https://www.doi.org/10.1016/j.fluid.2015.03.040
Surface Tension of Mixtures of Tetrahydrofuran or Tetrahydropyran with Isomeric Chlorobutanes:	https://www.doi.org/10.1007/s10765-007-0169-z
Isothermal Vapor-Liquid Equilibria and Excess Gibbs Energies for Binary Mixtures of Cyclic Ethers with 1,2-Dichloroethane:	https://www.doi.org/10.1021/acs.jced.7b01091
Isothermal vapour-liquid equilibrium for cyclic ethers with 1-chloropentane:	https://www.doi.org/10.1016/j.fluid.2006.10.024
Phase equilibrium and thermophysical properties of mixtures containing a cyclic ether and 1-chloropropane:	https://www.doi.org/10.1016/j.fluid.2010.04.017
Excess molar volumes and excess isentropic compressibilities of binary and ternary mixtures of o-chlorotoluene with cyclic ether and amides of cyclohexane at different temperatures:	https://www.doi.org/10.1016/j.jct.2014.06.030
Vapour-liquid equilibrium of cyclic ethers with 1-chlorohexane: Experimental results and UNIFAC predictions:	https://www.doi.org/10.1016/j.fluid.2007.05.013
Excess Enthalpy, Excess Volume, Viscosity Deviation, and Speed of Sound Deviation for the Mixture Tetrahydropyran + 2,2,2-Trifluoroethanol at (283.15, 298.15, and 313.15) K:	https://www.doi.org/10.1021/je025655p
Spectroscopical investigations of molecular interactions of binary and ternary mixtures containing tetrahydropyran, pyridine and N-ethyl formamide:	https://www.doi.org/10.1016/j.tca.2011.06.020
Heat capacities of binary and ternary mixtures containing o-chlorotoluene, cyclic ether and aromatic hydrocarbons:	https://www.doi.org/10.1016/j.fluid.2014.06.024
KDB Vapor Pressure Data:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1038
Volumetric Properties of Binary Mixtures of N-Ethylformamide with Tetrahydropyran, 2-Pentanone, and Propylacetate from (293.15 to 318.15) K:	https://www.doi.org/10.1021/je300974g
Thermophysical properties of dimethyl sulfoxide + cyclic and linear ethers at 298.15K Application of an extended cell model:	https://www.doi.org/10.1016/j.tca.2006.05.010
Experimental determination and theoretical modeling of the vapor-liquid equilibrium and surface tensions of hexane + tetrahydro-2H-pyran:	https://www.doi.org/10.1016/j.fluid.2011.12.007
Henry s Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethyl Ether, Chloroethane, and 1,1-Difluoroethane in Tetrahydropyran:	https://www.doi.org/10.1021/je700270d
Excess molar enthalpies of ternary mixtures containing o-toluidine + tetrahydropyran with pyridine or picolines:	https://www.doi.org/10.1016/j.tca.2011.12.023
Excess Enthalpy, Density, Viscosity, and Speed of Sound for the Mixture Tetrahydropyran + 1-Butanol at (283.15, 298.15 and 313.15) K:	https://www.doi.org/10.1021/je0498457
Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols:	https://www.doi.org/10.1021/acs.jced.6b00576
Vapor-Liquid Equilibria, Densities, and Interfacial Tensions of the System Hexane + Tetrahydro-2H-pyran:	https://www.doi.org/10.1021/je201140q
Excess Molar Enthalpies of Ternary Mixtures of Ethanol + 1-Propanol + Tetrahydropyran or 1,4-Dioxane at 298.15 K:	https://www.doi.org/10.1021/je049852v
Temperature dependence of limiting activity coefficients and Henry s law constants of cyclic and open-chain ethers in water:	https://www.doi.org/10.1016/j.fluid.2007.08.013
Experimental Isobaric Vapor-Liquid Equilibrium Data for Binary Mixtures of Cyclic Ethers with (1-Methylethyl)benzene:	https://www.doi.org/10.1021/je800087p
Isothermal (vapour + liquid) equilibrium of (cyclic ethers + chlorohexane) mixtures: Experimental results and SAFT modelling:	https://www.doi.org/10.1016/j.jct.2008.03.017
Thermodynamic Properties of Ternary Liquid Mixtures Containing o-Chlorotoluene: Excess Molar Volumes and Excess Isentropic Compressibilities:	https://www.doi.org/10.1021/je5004719
(Solid + liquid) phase equilibria of binary mixtures containing N-methyl-2-pyrrolidinone and ethers at atmospheric pressure:	https://www.doi.org/10.1016/j.fluid.2004.11.006
Study of isobaric vapour-liquid equilibrium of some cyclic ethers with 1-chloropropane: Experimental results and SAFT-VR modelling:	https://www.doi.org/10.1016/j.fluid.2009.01.010
Thermodynamic properties of binary mixtures of tetrahydropyran with pyridine and isomeric picolines: Excess molar volumes, excess molar enthalpies and excess isentropic compressibilities:	https://www.doi.org/10.1016/j.tca.2011.02.002
Experimental and predicted viscosities of binary mixtures of cyclic ethers with 1-chlorobutane at 283.15, 298.15 and 313.15K:	https://www.doi.org/10.1016/j.tca.2008.11.009
Experimental determination and theoretical modeling of the vapor liquid equilibrium and densities of the binary system butan-2-ol + tetrahydro-2H-pyran:	https://www.doi.org/10.1016/j.fluid.2012.12.021
Thermophysical Properties of Mixtures of Tetrahydropyran with Chlorobutanes:	https://www.doi.org/10.1007/s10765-006-0100-z
Thermodynamic properties of binary mixtures containing Tetrahydropyran: Excess molar volumes, Excess molar enthalpies and isentropic compressibilities changes of mixing:	https://www.doi.org/10.1016/j.tca.2010.03.028

Estimated Solubility Method:	http://pubs.acs.org/doi/suppl/10.1021/ci034243x/suppl_file/ci034243xsi20040112_053635.txt
Study of the Surface Tension of Chlorocyclohexane or Bromocyclohexane with some Cyclic Ethers:	https://www.doi.org/10.1021/je0500577
Vapor-liquid equilibrium and interfacial tensions of the system ethanol + hexane + tetrahydro-2H-Pyran:	https://www.doi.org/10.1016/j.fluid.2013.10.060
NIST Webbook:	http://webbook.nist.org/cgi/cbook.cgi?ID=C142687&Units=SI
Excess molar volumes, excess molar enthalpies, and excess isentropic compressibilities of tetrahydropyran with aromatic hydrocarbons:	https://www.doi.org/10.1016/j.jct.2010.07.016
Study of tetrahydropyran-chlorobutane VLE using the g and h approaches:	https://www.doi.org/10.1016/j.fluid.2005.02.014
Thermodynamic Studies of Molecular Interactions in Mixtures Containing Tetrahydropyran, 1,4-dioxane and Cyclic ketones:	https://www.doi.org/10.1021/acs.jced.6b00606
Densities, Speeds of Sound, Excess Molar Enthalpies, and Heat Capacities of Chlorotoluene and Cyclic Ether Mixtures:	https://www.doi.org/10.1021/je400722h
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
KDB:	https://www.cheric.org/files/research/kdb/mol/mol1038.mol
Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Tetrahydropyran and + 2-Methyltetrahydrofuran at (293.15, 303.15, and 313.15) K:	https://www.doi.org/10.1021/je600557n
Excess molar volumes and isentropic compressibilities changes of mixing of tetrahydropyran (or 1,4-dioxane) + alkanes (or 1-alkanol) mixtures at 308.15 K:	https://www.doi.org/10.1016/j.tca.2010.03.012
Isobaric Vapor-Liquid Equilibria for Tetrahydropyran and Alkanol Systems:	https://www.doi.org/10.1021/je900347f
Thermodynamic and topological investigations of ternary mixtures with o-toluidine, tetrahydropyran, and alcohols. Excess molar volume and Excess isentropic compressibility:	https://www.doi.org/10.1021/je800145h
Experimental Measurements and Correlations of Excess Molar Enthalpies for the Binary and Ternary Mixtures of (Cyclohexane, Tetrahydropyran, and Morpholine) or (Cyclohexane, 1,4-Dioxane, and Morpholine) at 298.15 K and Atmospheric Pressure:	https://www.doi.org/10.1016/j.jct.2011.10.002
Densities, viscosities, refractive indices, and surface tensions for binary mixtures of 2-propanol, 2,2,4-trimethylpentane, tetrahydropyran, and 1,4-Dioxane at 308.15 K and Atmospheric Pressure: Experimental Measurements and Correlations:	https://www.doi.org/10.1021/je1005196
Experimental Measurements and Correlations of Excess Molar Enthalpies for Binary Mixtures of Cyclohexane, Tetrahydropyran, and 1,4-Dioxane at 308.15 K and Atmospheric Pressure:	https://www.doi.org/10.1021/je9010097
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
Experimental Measurements and Correlations of Excess Molar Enthalpies for Binary Mixtures of Cyclohexane, Tetrahydropyran, and 2-Propanol, 2,2,4-Trimethylpentane, and 1,4-Dioxane at 308.15 K and Atmospheric Pressure:	https://www.doi.org/10.1016/j.jct.2010.08.019
	https://www.doi.org/10.1021/je900077g

Legend

affp:	Proton affinity
basg:	Gas basicity
chg:	Standard gas enthalpy of combustion
chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
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
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
kvisc:	Kinematic viscosity
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
rhoc:	Critical density
rhol:	Liquid Density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
speedsl:	Speed of sound in fluid
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume