

Diisopropyl ether

Other names:	(iso-C3H7)2O 1,1'-Dimethyldiethyl ether 1-methyl-1-(1-methylethoxy)ethane 2,2'-OXYBIS-PROPANE 2,2'-Oxybispropane 2,4-dimethyl-3-oxapentane 2-ISOPROPOXYPROPANE Bis(isopropyl) ether Diospropyl ether Diisopropyl oxide Ether isopropylique Ether, isopropyl ISOPROPYL ETHER Izopropylowy eter Propane, 2,2'-oxybis- UN 1159 bis(1-methylethyl) ether
Inchi:	InChI=1S/C6H14O/c1-5(2)7-6(3)4/h5-6H,1-4H3
InchiKey:	ZAFNJMIOTHYJRJ-UHFFFAOYSA-N
Formula:	C6H14O
SMILES:	CC(C)OC(C)C
Mol. weight [g/mol]:	102.17
CAS:	108-20-3

Physical Properties

Property code	Value	Unit	Source
af	0.3310		KDB
affp	855.50	kJ/mol	NIST Webbook
aigt	716.48	K	KDB
basg	828.10	kJ/mol	NIST Webbook
chl	-4010.40 ± 1.30	kJ/mol	NIST Webbook
dm	1.20	debye	KDB
fil	1.40	% in Air	KDB
flu	7.90	% in Air	KDB
fpc	247.04	K	KDB
fpo	245.37	K	KDB
gf	-122.00	kJ/mol	KDB

hf	-318.00 ± 3.00	kJ/mol	NIST Webbook
hf	-319.00	kJ/mol	KDB
hfl	-351.50 ± 1.40	kJ/mol	NIST Webbook
hfus	5.44	kJ/mol	Joback Method
hvap	32.12	kJ/mol	NIST Webbook
hvap	32.10 ± 0.10	kJ/mol	NIST Webbook
hvap	32.70 ± 0.50	kJ/mol	NIST Webbook
hvap	32.26	kJ/mol	NIST Webbook
ie	9.16 ± 0.05	eV	NIST Webbook
ie	9.32	eV	NIST Webbook
ie	9.20 ± 0.05	eV	NIST Webbook
ie	9.20 ± 0.05	eV	NIST Webbook
log10ws	-1.10		Estimated Solubility Method
log10ws	-1.10		Aqueous Solubility Prediction Method
logp	1.820		Crippen Method
mcpvol	101.270	ml/mol	McGowan Method
nfpaf	%!d(float64=3)		KDB
nfpah	%!d(float64=2)		KDB
nfpas	%!d(float64=1)		KDB
pc	2832.00	kPa	KDB
pc	2875.10 ± 13.78	kPa	NIST Webbook
pc	2832.00 ± 6.00	kPa	NIST Webbook
rinpol	598.00		NIST Webbook
rinpol	602.00		NIST Webbook
rinpol	593.00		NIST Webbook
rinpol	596.00		NIST Webbook
rinpol	590.00		NIST Webbook
rinpol	594.00		NIST Webbook
rinpol	590.00		NIST Webbook
rinpol	624.00		NIST Webbook
rinpol	563.00		NIST Webbook
rinpol	564.00		NIST Webbook
rinpol	568.00		NIST Webbook
rinpol	570.00		NIST Webbook
rinpol	565.00		NIST Webbook
rinpol	564.00		NIST Webbook
rinpol	593.00		NIST Webbook
rinpol	594.00		NIST Webbook
rinpol	602.00		NIST Webbook
rinpol	594.00		NIST Webbook
rinpol	603.00		NIST Webbook
rinpol	594.00		NIST Webbook
rinpol	568.00		NIST Webbook

ripol	570.00		NIST Webbook
ripol	598.00		NIST Webbook
ripol	658.30		NIST Webbook
ripol	651.00		NIST Webbook
ripol	652.00		NIST Webbook
ripol	679.00		NIST Webbook
ripol	670.00		NIST Webbook
ripol	655.40		NIST Webbook
ripol	649.00		NIST Webbook
ripol	662.00		NIST Webbook
ripol	657.00		NIST Webbook
ripol	658.00		NIST Webbook
ripol	667.00		NIST Webbook
ripol	659.00		NIST Webbook
ripol	659.00		NIST Webbook
ripol	651.00		NIST Webbook
ripol	649.00		NIST Webbook
ripol	682.00		NIST Webbook
ripol	657.00		NIST Webbook
sl	294.60	J/mol×K	NIST Webbook
sl	304.60	J/mol×K	NIST Webbook
tb	341.15 ± 1.00	K	NIST Webbook
tb	341.42 ± 0.07	K	NIST Webbook
tb	341.60 ± 2.00	K	NIST Webbook
tb	341.55 ± 1.00	K	NIST Webbook
tb	340.80 ± 0.60	K	NIST Webbook
tb	341.15 ± 0.30	K	NIST Webbook
tb	341.65	K	NIST Webbook
tb	340.70 ± 0.50	K	NIST Webbook
tb	341.50	K	NIST Webbook
tb	341.20	K	NIST Webbook
tb	341.63 ± 0.20	K	NIST Webbook
tb	341.40 ± 0.30	K	NIST Webbook
tb	341.60 ± 0.30	K	NIST Webbook
tb	341.35	K	Excess volumes, densities, speeds of sound and viscosities for the binary systems of diisopropyl ether with hydrocarbons at 303.15K
tb	341.72	K	Separation of the mixture (isopropyl alcohol + diisopropyl ether + n-propanol): Entrainer selection, interaction exploration and vapour-liquid equilibrium measurements

tb	341.77	K	Vapour-liquid equilibrium and extractive distillation for separation of azeotrope isopropyl alcohol and diisopropyl ether
tb	341.40	K	Isobaric (vapour + liquid + liquid) equilibrium data for (di-n-propyl ether + n-propyl alcohol + water) and (diisopropyl ether + isopropyl alcohol + water) systems at 100 kPa
tb	341.55	K	(Liquid + liquid) equilibria of (water + propionic acid + dipropyl ether or diisopropyl ether) at T = 298.2 K
tb	341.53	K	Vapor liquid equilibria for binary and ternary mixtures of diisopropyl ether, ethanol, and 2,2,4-trimethylpentane at 101.3 kPa
tb	341.66	K	KDB
tb	342.20 ± 0.20	K	NIST Webbook
tb	341.69 ± 0.12	K	NIST Webbook
tb	341.35	K	Quaternary phase equilibrium of water-carboxylic acid mixture (formic-propionic acid or acetic-propionic acid)-solvent liquid systems at 298.15 K
tb	341.35	K	Vapor-Liquid Equilibria for the Binary Systems of Dimethoxymethane with Some Fuel Oxygenates
tc	500.10 ± 0.30	K	NIST Webbook
tc	500.32	K	KDB
tc	500.30	K	NIST Webbook
tc	499.60 ± 0.30	K	NIST Webbook
tc	499.60 ± 0.30	K	NIST Webbook
tc	500.32 ± 0.10	K	NIST Webbook
tf	186.30	K	KDB
tf	186.75	K	Aqueous Solubility Prediction Method
tf	187.65	K	NIST Webbook
tf	187.26 ± 0.05	K	NIST Webbook
tt	187.77	K	KDB
tt	187.77 ± 0.06	K	NIST Webbook
tt	186.30 ± 0.20	K	NIST Webbook
vc	0.386	m3/kmol	KDB
vc	0.386 ± 0.005	m3/kmol	NIST Webbook
zc	0.2627820		KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	219.11	J/mol×K	449.98	NIST Webbook
cpg	199.33	J/mol×K	399.98	NIST Webbook
cpg	191.01	J/mol×K	380.01	NIST Webbook
cpg	182.47	J/mol×K	360.04	NIST Webbook
cpg	209.60	J/mol×K	424.98	NIST Webbook
cpl	229.89	J/mol×K	334.95	Speed of sound, density and derivative properties of binary mixtures HFE-7500 + Diisopropyl ether under high pressure
cpl	223.46	J/mol×K	320.13	Speed of sound, density and derivative properties of binary mixtures HFE-7500 + Diisopropyl ether under high pressure
cpl	225.50	J/mol×K	325.07	Speed of sound, density and derivative properties of binary mixtures HFE-7500 + Diisopropyl ether under high pressure
cpl	227.65	J/mol×K	330.01	Speed of sound, density and derivative properties of binary mixtures HFE-7500 + Diisopropyl ether under high pressure
cpl	219.37	J/mol×K	310.26	Speed of sound, density and derivative properties of binary mixtures HFE-7500 + Diisopropyl ether under high pressure

cpl	232.04	J/mol×K	339.89	Speed of sound, density and derivative properties of binary mixtures HFE-7500 + Diisopropyl ether under high pressure
cpl	216.74	J/mol×K	298.15	NIST Webbook
cpl	216.10	J/mol×K	298.15	NIST Webbook
cpl	216.31	J/mol×K	293.10	NIST Webbook
cpl	217.33	J/mol×K	305.32	Speed of sound, density and derivative properties of binary mixtures HFE-7500 + Diisopropyl ether under high pressure
cpl	215.28	J/mol×K	300.38	Speed of sound, density and derivative properties of binary mixtures HFE-7500 + Diisopropyl ether under high pressure
cpl	213.44	J/mol×K	295.44	Speed of sound, density and derivative properties of binary mixtures HFE-7500 + Diisopropyl ether under high pressure
cpl	221.41	J/mol×K	315.20	Speed of sound, density and derivative properties of binary mixtures HFE-7500 + Diisopropyl ether under high pressure
cpl	211.50	J/mol×K	290.50	Speed of sound, density and derivative properties of binary mixtures HFE-7500 + Diisopropyl ether under high pressure

dvisc	0.0002857	Pa×s	308.15	Viscosities of Binary Mixtures Containing Isomeric Chlorobutanes and Diisopropylether: Experimental and Predicted Values
dvisc	0.0003001	Pa×s	303.15	Viscosities of Binary Mixtures Containing Isomeric Chlorobutanes and Diisopropylether: Experimental and Predicted Values
dvisc	0.0002723	Pa×s	313.15	Viscosities of Binary Mixtures Containing Isomeric Chlorobutanes and Diisopropylether: Experimental and Predicted Values
dvisc	0.0003340	Pa×s	293.15	Viscosities of Binary Mixtures Containing Isomeric Chlorobutanes and Diisopropylether: Experimental and Predicted Values
dvisc	0.0003486	Pa×s	288.15	Viscosities of Binary Mixtures Containing Isomeric Chlorobutanes and Diisopropylether: Experimental and Predicted Values
dvisc	0.0003646	Pa×s	283.15	Viscosities of Binary Mixtures Containing Isomeric Chlorobutanes and Diisopropylether: Experimental and Predicted Values
dvisc	0.0003178	Pa×s	298.15	Viscosities of Binary Mixtures Containing Isomeric Chlorobutanes and Diisopropylether: Experimental and Predicted Values

hfust	11.03	kJ/mol	186.30	NIST Webbook
hfust	12.04	kJ/mol	187.77	NIST Webbook
hfust	12.05	kJ/mol	187.80	NIST Webbook
hfust	12.05	kJ/mol	187.80	NIST Webbook
hvapt	29.20	kJ/mol	324.50	NIST Webbook
hvapt	29.90	kJ/mol	400.00	NIST Webbook
hvapt	32.60	kJ/mol	324.50	NIST Webbook
hvapt	33.00	kJ/mol	300.50	NIST Webbook
hvapt	29.10	kJ/mol	341.50	NIST Webbook
hvapt	29.33	kJ/mol	341.40	KDB
hvapt	29.50	kJ/mol	468.00	NIST Webbook
hvapt	32.10	kJ/mol	319.00	NIST Webbook
hvapt	33.20	kJ/mol	303.00	NIST Webbook
hvapt	30.10	kJ/mol	335.50	NIST Webbook
hvapt	31.10	kJ/mol	328.00	NIST Webbook
kvisc	0.0000004	m2/s	313.15	Kinematic Viscosities for Ether + Alkane Mixtures: Experimental Results and UNIFAC-VISCO Parameters
kvisc	0.0000004	m2/s	298.15	Kinematic Viscosities for Ether + Alkane Mixtures: Experimental Results and UNIFAC-VISCO Parameters
kvisc	0.0000005	m2/s	283.15	Kinematic Viscosities for Ether + Alkane Mixtures: Experimental Results and UNIFAC-VISCO Parameters
pvap	67.49	kPa	329.40	The thermodynamics of vaporization of ethyl tert-butyl ether, isobutyl tert-butyl ether, and di-isopropyl ether
pvap	56.12	kPa	324.17	The thermodynamics of vaporization of ethyl tert-butyl ether, isobutyl tert-butyl ether, and di-isopropyl ether

pvap	45.83	kPa	318.65	The thermodynamics of vaporization of ethyl tert-butyl ether, isobutyl tert-butyl ether, and di-isopropyl ether
pvap	37.26	kPa	313.25	The thermodynamics of vaporization of ethyl tert-butyl ether, isobutyl tert-butyl ether, and di-isopropyl ether
pvap	30.91	kPa	308.58	The thermodynamics of vaporization of ethyl tert-butyl ether, isobutyl tert-butyl ether, and di-isopropyl ether
pvap	30.46	kPa	308.15	Isothermal vapour-liquid equilibria and excess enthalpies for the binary mixtures containing an isomeric chlorobutane and diisopropyl ether
pvap	20.00	kPa	298.15	Isothermal vapour-liquid equilibria and excess enthalpies for the binary mixtures containing an isomeric chlorobutane and diisopropyl ether
pvap	12.65	kPa	288.15	Isothermal vapour-liquid equilibria and excess enthalpies for the binary mixtures containing an isomeric chlorobutane and diisopropyl ether
pvap	151.82	kPa	354.88	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers

pvap	151.81	kPa	354.87	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers
pvap	112.39	kPa	344.85	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers
pvap	112.36	kPa	344.84	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers
pvap	81.42	kPa	334.85	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers
pvap	81.41	kPa	334.85	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers
pvap	57.65	kPa	324.87	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers
pvap	76.24	kPa	333.22	Vapour liquid equilibria, enthalpy of mixing of binary mixtures containing diisopropylether DIPE and monoaromatic hydrocarbons Experimental results and modelling
pvap	39.72	kPa	314.87	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers
pvap	39.71	kPa	314.86	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers

pvap	26.58	kPa	304.89	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers
pvap	26.57	kPa	304.87	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers
pvap	17.21	kPa	294.91	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers
pvap	17.21	kPa	294.90	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers
pvap	10.75	kPa	284.93	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers
pvap	10.74	kPa	284.93	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers
pvap	104.96	kPa	343.18	Vapour liquid equilibria, enthalpy of mixing of binary mixtures containing diisopropylether DIPE and monoaromatic hydrocarbons Experimental results and modelling
pvap	81.57	kPa	334.98	The thermodynamics of vaporization of ethyl tert-butyl ether, isobutyl tert-butyl ether, and di-isopropyl ether

pvap	53.85	kPa	323.25	Vapour liquid equilibria, enthalpy of mixing of binary mixtures containing diisopropylether DIPE and monoaromatic hydrocarbons Experimental results and modelling
pvap	36.95	kPa	313.27	Vapour liquid equilibria, enthalpy of mixing of binary mixtures containing diisopropylether DIPE and monoaromatic hydrocarbons Experimental results and modelling
pvap	24.57	kPa	303.28	Vapour liquid equilibria, enthalpy of mixing of binary mixtures containing diisopropylether DIPE and monoaromatic hydrocarbons Experimental results and modelling
pvap	15.80	kPa	293.29	Vapour liquid equilibria, enthalpy of mixing of binary mixtures containing diisopropylether DIPE and monoaromatic hydrocarbons Experimental results and modelling
pvap	9.69	kPa	283.35	Vapour liquid equilibria, enthalpy of mixing of binary mixtures containing diisopropylether DIPE and monoaromatic hydrocarbons Experimental results and modelling

pvap	5.71	kPa	273.47	Vapour liquid equilibria, enthalpy of mixing of binary mixtures containing diisopropylether DIPE and monoaromatic hydrocarbons Experimental results and modelling
pvap	3.21	kPa	263.75	Vapour liquid equilibria, enthalpy of mixing of binary mixtures containing diisopropylether DIPE and monoaromatic hydrocarbons Experimental results and modelling
pvap	93.18	kPa	339.03	The thermodynamics of vaporization of ethyl tert-butyl ether, isobutyl tert-butyl ether, and di-isopropyl ether
pvap	95.31	kPa	339.73	The thermodynamics of vaporization of ethyl tert-butyl ether, isobutyl tert-butyl ether, and di-isopropyl ether
pvap	97.44	kPa	340.41	The thermodynamics of vaporization of ethyl tert-butyl ether, isobutyl tert-butyl ether, and di-isopropyl ether
pvap	57.64	kPa	324.85	Isothermal vapour liquid equilibria of binary systems of 1,2-dichloroethane with ethers

rfi	1.35954	308.15	Densities and Viscosities for Binary and Ternary Mixtures of Diisopropyl Ether, Ethanol, and Methylcyclohexane
rfi	1.36523	298.15	Isobaric Vapor-Liquid Equilibria at 101.32 kPa and Densities, Speeds of Sound, and Refractive Indices at 298.15 K for MTBE or DIPE or TAME + 1-Propanol Binary Systems
rfi	1.36520	298.15	Isobaric Vapor-Liquid Equilibria for Binary and Ternary Mixtures of Diisopropyl Ether, 2-Propyl Alcohol, and n-Butyl Propionate at 101.3 kPa
rfi	1.36520	298.15	Isobaric Vapor-Liquid Equilibria for Binary and Ternary Mixtures of Diisopropyl Ether, 2-Propyl Alcohol, and 3-Methyl-1-Butanol
rfi	1.36510	298.15	Vapor Liquid Equilibrium for Ternary and Binary Mixtures of 2-Isopropoxypropane, 2-Propanol, and N,N-Dimethylacetamide at 101.3 kPa
rfi	1.35667	313.15	Volumetric, Acoustic, and Refractive Properties of Isomeric Chlorobutanes with Diisopropyl Ether

rfi	1.35956	308.15	Volumetric, Acoustic, and Refractive Properties of Isomeric Chlorobutanes with Diisopropyl Ether
rfi	1.36242	303.15	Volumetric, Acoustic, and Refractive Properties of Isomeric Chlorobutanes with Diisopropyl Ether
rfi	1.36525	298.15	Volumetric, Acoustic, and Refractive Properties of Isomeric Chlorobutanes with Diisopropyl Ether
rfi	1.36812	293.15	Volumetric, Acoustic, and Refractive Properties of Isomeric Chlorobutanes with Diisopropyl Ether
rfi	1.36650	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	1.37084	288.15	Volumetric, Acoustic, and Refractive Properties of Isomeric Chlorobutanes with Diisopropyl Ether
rfi	1.37358	283.15	Volumetric, Acoustic, and Refractive Properties of Isomeric Chlorobutanes with Diisopropyl Ether

rfi	1.35944	308.15	Densities, Viscosities, and Refractive Indices for Binary and Ternary Mixtures of Diisopropyl Ether, Ethanol, and 2,2,4-Trimethylpentane
rfi	1.36540	298.15	(Vapor + liquid) equilibrium of binary mixtures formed by N,N-dimethyl formamide with some compounds at 95.1 kPa
rfi	1.36524	298.15	Densities, Viscosities, and Refractive Indices for Binary and Ternary Mixtures of Diisopropyl Ether, Ethanol, and 2,2,4-Trimethylpentane
rfi	1.36520	298.15	Effect of pressure and the capability of 2-methoxyethanol as a solvent in the behaviour of a diisopropyl ether isopropyl alcohol azeotropic mixture
rfi	1.36644	298.15	Vapor liquid equilibria and interfacial tensions for the ternary system acetone + 2,2-oxybis[propane] + cyclohexane and its constituent binary systems
rfi	1.36530	298.20	Measurement and prediction of tie-line data for mixtures of (water + 1-propanol + diisopropyl ether): LLE diagrams as a function of temperature

rfi	1.36652		298.15	Isobaric vapor liquid equilibrium and isothermal surface tensions of 2,2-oxybis[propane] + 2,5-Dimethylfuran
rfi	1.37093		288.15	Densities, Viscosities, and Refractive Indices for Binary and Ternary Mixtures of Diisopropyl Ether, Ethanol, and 2,2,4-Trimethylpentane
rfi	1.37126		288.15	Densities and Viscosities for Binary and Ternary Mixtures of Diisopropyl Ether, Ethanol, and Methylcyclohexane
rfi	1.36537		298.15	Densities and Viscosities for Binary and Ternary Mixtures of Diisopropyl Ether, Ethanol, and Methylcyclohexane
rhoI	702.59	kg/m3	313.15	Volumetric properties of (N,N-dimethylformamide + aliphatic diethers) at Temperatures ranging from (298.15 to 358.15) K
rhoI	723.67	kg/m3	293.15	Volumetric properties of binary mixtures of ethers and acetonitrile: Experimental results and application of the Prigogine Flory Patterson theory
rhoI	718.46	kg/m3	298.15	Volumetric properties of binary mixtures of ethers and acetonitrile: Experimental results and application of the Prigogine Flory Patterson theory

rhoI	718.30	kg/m3	298.15	Experimental isobaric vapor-liquid equilibrium at atmospheric and sub-atmospheric pressures, excess molar volumes and deviations in molar refractivity from 293.15 K to 318.15 K of diisopropyl ether with methanol and isopropyl alcohol.
rhoI	718.30	kg/m3	298.15	Isobaric ternary vapour-liquid equilibrium of methanol(1) + diisopropyl ether(2) + isopropyl alcohol(3) along with methanol + isopropyl alcohol binary data at atmospheric and sub-atmospheric pressures
rhoI	713.21	kg/m3	303.15	Volumetric properties of binary mixtures of ethers and acetonitrile: Experimental results and application of the Prigogine Flory Patterson theory
rhoI	718.51	kg/m3	298.15	Isothermal (vapour + liquid) equilibria for binary mixtures of diisopropyl ether with (methanol, or ethanol, or 1-butanol): Experimental data, correlations, and predictions
rhoI	713.10	kg/m3	303.15	Density, viscosity, and speed of sound of binary liquid mixtures of vinyl acetate with butyl vinyl ether, diisopropyl ether, anisole and dibutyl ether

rhoI	707.90	kg/m3	308.15	Density, viscosity, and speed of sound of binary liquid mixtures of vinyl acetate with butyl vinyl ether, diisopropyl ether, anisole and dibutyl ether
rhoI	702.50	kg/m3	313.15	Density, viscosity, and speed of sound of binary liquid mixtures of vinyl acetate with butyl vinyl ether, diisopropyl ether, anisole and dibutyl ether
rhoI	718.70	kg/m3	298.15	Excess Enthalpies of the Ternary Mixtures: Diisopropyl Ether + 3-Methylpentane + (Octane or Decane) at 298.15 K
rhoI	718.38	kg/m3	298.15	Excess Molar Volumes and Surface Tensions of Xylene with Isopropyl Ether or Methyl tert-Butyl Ether at 298.15 K
rhoI	718.24	kg/m3	298.15	Excess Volumes of Ternary Mixtures 2,2,4-Trimethylpentane + Diisopropyl Ether or Methyl tert-Butyl Ether + Methanol, Ethanol, or 1-Propanol at 298.15 K
rhoI	713.51	kg/m3	303.15	Isothermal VLE and VE at 303.15 K for the Binary and Ternary Mixtures of Di-isopropyl Ether (DIPE) + 1-Propanol + 2,2,4-Trimethylpentane

rhoI	718.51	kg/m3	298.15	Volumetric properties of (N,N-dimethylformamide + aliphatic diethers) at Temperatures ranging from (298.15 to 358.15) K
rhoI	728.82	kg/m3	288.15	Volumetric properties of binary mixtures of ethers and acetonitrile: Experimental results and application of the Prigogine Flory Patterson theory
rhoI	719.17	kg/m3	298.15	Volumetric properties of binary and ternary mixtures of diisopropyl ether, a,a,a-trifluorotoluene, 2,2,2-trifluoroethanol, and ethanol at a temperature 298.15 K and pressure 101 kPa
rhoI	686.20	kg/m3	328.15	Volumetric properties of (N,N-dimethylformamide + aliphatic diethers) at Temperatures ranging from (298.15 to 358.15) K
rhoI	724.00	kg/m3	293.00	KDB
rhoI	718.14	kg/m3	298.15	Phase equilibria for binary systems of octane boosters with 2,2,4-trimethylpentane
rhoI	723.80	kg/m3	298.15	Tie-Line Data for Aqueous Mixtures of Butyric Acid with Diisopropyl Ether at Various Temperatures

rhoI	718.62	kg/m3	298.15	Liquid liquid equilibria for the binary system of di-isopropyl ether (DIPE) +water in between 288.15 and 323.15K and the ternary systems of DIPE +water + C1 C4 alcohols at 298.15K
rhoI	719.17	kg/m3	298.15	Isothermal vapor liquid equilibrium at 333.15K and excess molar volumes at 298.15K for the ternary system di-isopropyl ether + n-propyl alcohol + toluene and its binary subsystems
rhoI	718.23	kg/m3	298.15	Vapour-liquid equilibria in binary and ternary systems composed of 2,3-dimethylbutane, diisopropyl ether, and 3-methyl-2-butanone at 313.15, 323.15 and 313.15 K
rhoI	718.38	kg/m3	298.15	Isothermal vapour liquid equilibria in the binary and ternary systems composed of 2-propanol, diisopropyl ether and 4-methyl-2-pentanone
sfust	59.18	J/mol×K	186.30	NIST Webbook
sfust	64.09	J/mol×K	187.77	NIST Webbook
speedsl	891.00	m/s	323.15	Thermodynamic and Acoustic Properties of Binary Mixtures of Ethers. 2. Diisopropyl Ether with Arylamines at (303.15, 313.15, and 323.15) K and Application of ERAS Model to Aniline Mixtures with Diisopropyl Ether and Oxolane

speedsl	790.74	m/s	347.96	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	915.66	m/s	318.27	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	986.38	m/s	303.08	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	731.21	m/s	362.87	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	976.00	m/s	303.15	Thermodynamic and acoustic properties of binary mixtures of ethers. III. Diisopropyl ether or oxolane with o- or m-toluidines at 303.15, 313.15 and 323.15 K
speedsl	892.00	m/s	323.15	Thermodynamic and Acoustic Properties of Binary Mixtures of Ethers. 2. Diisopropyl Ether with Arylamines at (303.15, 313.15, and 323.15) K and Application of ERAS Model to Aniline Mixtures with Diisopropyl Ether and Oxolane

speedsl	934.00	m/s	313.15	Thermodynamic and Acoustic Properties of Binary Mixtures of Ethers. 2. Diisopropyl Ether with Arylamines at (303.15, 313.15, and 323.15) K and Application of ERAS Model to Aniline Mixtures with Diisopropyl Ether and Oxolane
speedsl	975.00	m/s	303.15	Thermodynamic and Acoustic Properties of Binary Mixtures of Ethers. 2. Diisopropyl Ether with Arylamines at (303.15, 313.15, and 323.15) K and Application of ERAS Model to Aniline Mixtures with Diisopropyl Ether and Oxolane
speedsl	889.00	m/s	323.15	Thermodynamic and acoustic properties of binary mixtures of ethers. V. Diisopropyl ether or oxolane with 2- or 3-chloroanilines at 303.15, 313.15 and 323.15 K
speedsl	932.00	m/s	313.15	Thermodynamic and acoustic properties of binary mixtures of ethers. V. Diisopropyl ether or oxolane with 2- or 3-chloroanilines at 303.15, 313.15 and 323.15 K
speedsl	662.26	m/s	378.14	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa

speedsl	976.00	m/s	303.15	Thermodynamic and acoustic properties of binary mixtures of ethers. V. Diisopropyl ether or oxolane with 2- or 3-chloroanilines at 303.15, 313.15 and 323.15 K
speedsl	889.00	m/s	323.15	Thermodynamic and acoustic properties of binary mixtures of ethers. IV. Diisopropyl ether or oxolane with N,N-dimethylaniline or N,Ndiethylaniline at 303.15, 313.15 and 323.15 K
speedsl	932.00	m/s	313.15	Thermodynamic and acoustic properties of binary mixtures of ethers. IV. Diisopropyl ether or oxolane with N,N-dimethylaniline or N,Ndiethylaniline at 303.15, 313.15 and 323.15 K
speedsl	976.00	m/s	303.15	Thermodynamic and acoustic properties of binary mixtures of ethers. IV. Diisopropyl ether or oxolane with N,N-dimethylaniline or N,Ndiethylaniline at 303.15, 313.15 and 323.15 K
speedsl	135.68	m/s	492.48	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	162.27	m/s	487.42	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa

speedsl	185.80	m/s	483.10	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	210.25	m/s	478.69	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	237.38	m/s	473.80	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	889.00	m/s	323.15	Thermodynamic and acoustic properties of binary mixtures of ethers. III. Diisopropyl ether or oxolane with o- or m-toluidines at 303.15, 313.15 and 323.15 K
speedsl	290.41	m/s	463.00	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	315.85	m/s	457.54	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	336.71	m/s	453.54	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	384.46	m/s	443.46	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa

speedsl	426.77	m/s	432.74	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	469.11	m/s	422.75	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	514.15	m/s	412.75	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	552.35	m/s	402.97	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	593.47	m/s	393.15	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	263.51	m/s	468.31	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa
speedsl	932.00	m/s	313.15	Thermodynamic and acoustic properties of binary mixtures of ethers. III. Diisopropyl ether or oxolane with o- or m-toluidines at 303.15, 313.15 and 323.15 K
speedsl	852.50	m/s	333.62	Speed of sound measurements of di-isopropyl ether (DIPE) from 293.15 K to 673.15 K and up to 10 MPa

srf	0.02	N/m	308.08	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.01	N/m	368.17	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.01	N/m	363.17	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.01	N/m	358.15	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.01	N/m	353.10	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.01	N/m	348.10	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.01	N/m	343.10	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.01	N/m	338.11	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.01	N/m	333.12	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.01	N/m	328.12	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.01	N/m	323.19	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.02	N/m	318.17	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether

srf	0.02	N/m	313.27	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.02	N/m	248.07	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.02	N/m	303.17	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.02	N/m	298.10	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.02	N/m	293.16	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.02	N/m	288.18	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.02	N/m	283.18	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.02	N/m	278.50	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.02	N/m	273.46	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.02	N/m	268.33	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.02	N/m	263.18	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.02	N/m	258.10	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether

srf	0.02	N/m	253.23	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether
srf	0.02	N/m	298.20	KDB
srf	0.01	N/m	373.17	Surface Tension of Diethyl Ether, Diisopropyl Ether, and Dibutyl Ether

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.53410e+01
Coeff. B	-3.27391e+03
Coeff. C	-3.60730e+01
Temperature range (K), min.	253.56
Temperature range (K), max.	362.50

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/T + C*\ln(T) + D*T^2$
Coeff. A	4.13028e+01
Coeff. B	-4.89952e+03
Coeff. C	-3.87085e+00
Coeff. D	1.96241e-06
Temperature range (K), min.	187.65
Temperature range (K), max.	500.05

Datasets

Viscosity, Pa*s

Pressure, kPa - Liquid	Temperature, K - Liquid	Viscosity, Pa*s - Liquid
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20000.00	293.15	0.0003960
40000.00	293.15	0.0004660
60000.00	293.15	0.0005420
80000.00	293.15	0.0006250
100000.00	293.15	0.0007150
20000.00	313.15	0.0003320
40000.00	313.15	0.0003920
60000.00	313.15	0.0004540
80000.00	313.15	0.0005200
100000.00	313.15	0.0005880
20000.00	333.15	0.0002820
40000.00	333.15	0.0003420
60000.00	333.15	0.0004020
80000.00	333.15	0.0004600
100000.00	333.15	0.0005170
20000.00	353.15	0.0002580
40000.00	353.15	0.0003080
60000.00	353.15	0.0003580
80000.00	353.15	0.0004080
100000.00	353.15	0.0004570
100.00	293.15	0.0003300
100.00	313.15	0.0002700
100.00	333.15	0.0002250

Reference

<https://www.doi.org/10.1021/acs.jced.9b00540>

Temperature, K	Pressure, kPa	Viscosity, Pa*s
243.15	100.00	0.0006191
243.15	4660.00	0.0006466
243.15	10070.00	0.0006826
243.15	15370.00	0.0007177
243.15	20860.00	0.0007529
253.15	100.00	0.0005343
253.15	4720.00	0.0005601
253.15	9990.00	0.0005898
253.15	15400.00	0.0006187
253.15	20740.00	0.0006500
263.15	100.00	0.0004687
263.15	4470.00	0.0004896
263.15	9490.00	0.0005141
263.15	14490.00	0.0005388
263.15	19640.00	0.0005638
273.15	100.00	0.0004142

273.15	4690.00	0.0004344
273.15	10010.00	0.0004579
273.15	15290.00	0.0004815
273.15	20420.00	0.0005042
283.15	100.00	0.0003689
283.15	4700.00	0.0003877
283.15	10100.00	0.0004088
283.15	15460.00	0.0004306
283.15	21360.00	0.0004560
293.15	100.00	0.0003311
293.15	4470.00	0.0003474
293.15	9590.00	0.0003671
293.15	14750.00	0.0003855
293.15	20450.00	0.0004079
303.15	100.00	0.0002990
303.15	4440.00	0.0003124
303.15	9500.00	0.0003310
303.15	14650.00	0.0003496
303.15	19650.00	0.0003668
313.15	100.00	0.0002703
313.15	4840.00	0.0002869
313.15	10140.00	0.0003038
313.15	15550.00	0.0003213
313.15	21490.00	0.0003414
323.15	100.00	0.0002468
323.15	4760.00	0.0002615
323.15	10370.00	0.0002776
323.15	15480.00	0.0002946
323.15	20780.00	0.0003110
333.15	100.00	0.0002254
333.15	4750.00	0.0002389
333.15	10360.00	0.0002554
333.15	15670.00	0.0002716
333.15	20890.00	0.0002848
343.15	130.00	0.0002064
343.15	4390.00	0.0002183
343.15	9530.00	0.0002335
343.15	14740.00	0.0002471
343.15	21230.00	0.0002649
353.15	200.00	0.0001889
353.15	4830.00	0.0002030
353.15	10320.00	0.0002176
353.15	15760.00	0.0002324
353.15	21100.00	0.0002466

363.15	230.00	0.0001736
363.15	4730.00	0.0001871
363.15	10170.00	0.0002014
363.15	15830.00	0.0002152
363.15	20860.00	0.0002294
373.15	310.00	0.0001602
373.15	4730.00	0.0001721
373.15	9630.00	0.0001854
373.15	15600.00	0.0002008
373.15	21680.00	0.0002152

Reference

<https://www.doi.org/10.1021/je8005369>

Mass density, kg/m3

Temperature, K - Liquid	Pressure, kPa - Liquid	Mass density, kg/m3 - Liquid
283.15	100.00	733.83
288.15	100.00	728.69
293.15	100.00	723.51
298.15	100.00	718.29
303.15	100.00	713.03
308.15	100.00	707.73
313.15	100.00	702.38
318.15	100.00	697.07
323.15	100.00	691.61
328.15	100.00	686.17
333.15	100.00	681.0
283.15	5000.00	739.6
288.15	5000.00	734.61
293.15	5000.00	729.62
298.15	5000.00	724.67
303.15	5000.00	719.61
308.15	5000.00	714.61
313.15	5000.00	709.64
318.15	5000.00	704.53
323.15	5000.00	699.42
328.15	5000.00	694.18
333.15	5000.00	688.97
283.15	10000.00	744.9
288.15	10000.00	740.14
293.15	10000.00	735.37

298.15	10000.00	730.59
303.15	10000.00	725.79
308.15	10000.00	720.99
313.15	10000.00	716.16
318.15	10000.00	711.3
323.15	10000.00	706.46
328.15	10000.00	701.52
333.15	10000.00	696.58
283.15	15000.00	749.85
288.15	15000.00	745.3
293.15	15000.00	740.69
298.15	15000.00	736.05
303.15	15000.00	731.48
308.15	15000.00	726.79
313.15	15000.00	722.17
318.15	15000.00	717.51
323.15	15000.00	712.89
328.15	15000.00	708.19
333.15	15000.00	703.52
283.15	20000.00	754.49
288.15	20000.00	750.09
293.15	20000.00	745.62
298.15	20000.00	741.13
303.15	20000.00	736.81
308.15	20000.00	732.2
313.15	20000.00	727.77
318.15	20000.00	723.27
323.15	20000.00	718.83
328.15	20000.00	714.34
333.15	20000.00	709.85
283.15	25000.00	758.89
288.15	25000.00	754.61
293.15	25000.00	750.29
298.15	25000.00	745.92
303.15	25000.00	741.76
308.15	25000.00	737.29
313.15	25000.00	732.97
318.15	25000.00	728.67
323.15	25000.00	724.38
328.15	25000.00	720.04
333.15	25000.00	715.73
283.15	30000.00	763.08
288.15	30000.00	758.9
293.15	30000.00	754.71

298.15	30000.00	750.46
303.15	30000.00	746.43
308.15	30000.00	742.07
313.15	30000.00	737.92
318.15	30000.00	733.74
323.15	30000.00	729.58
328.15	30000.00	725.37
333.15	30000.00	721.21
283.15	35000.00	767.08
288.15	35000.00	763.01
293.15	35000.00	758.91
298.15	35000.00	754.77
303.15	35000.00	750.85
308.15	35000.00	746.63
313.15	35000.00	742.55
318.15	35000.00	738.49
323.15	35000.00	734.45
328.15	35000.00	730.4
333.15	35000.00	726.36
283.15	40000.00	770.91
288.15	40000.00	766.92
293.15	40000.00	762.93
298.15	40000.00	758.89
303.15	40000.00	755.09
308.15	40000.00	750.94
313.15	40000.00	746.98
318.15	40000.00	743.01
323.15	40000.00	739.08
328.15	40000.00	735.15
333.15	40000.00	731.23
283.15	45000.00	774.59
288.15	45000.00	770.68
293.15	45000.00	766.78
298.15	45000.00	762.82
303.15	45000.00	759.12
308.15	45000.00	755.05
313.15	45000.00	751.2
318.15	45000.00	747.34
323.15	45000.00	743.5
328.15	45000.00	739.67
333.15	45000.00	735.85
283.15	50000.00	778.13
288.15	50000.00	774.31
293.15	50000.00	770.48

298.15	50000.00	766.6
303.15	50000.00	763.0
308.15	50000.00	759.01
313.15	50000.00	755.21
318.15	50000.00	751.47
323.15	50000.00	747.72
328.15	50000.00	743.94
333.15	50000.00	740.18
283.15	55000.00	781.56
288.15	55000.00	777.77
293.15	55000.00	774.06
298.15	55000.00	770.25
303.15	55000.00	766.7
308.15	55000.00	762.79
313.15	55000.00	759.09
318.15	55000.00	755.41
323.15	55000.00	751.72
328.15	55000.00	748.05
333.15	55000.00	744.38
283.15	60000.00	784.88
288.15	60000.00	781.16
293.15	60000.00	777.49
298.15	60000.00	773.75
303.15	60000.00	770.24
308.15	60000.00	766.45
313.15	60000.00	762.83
318.15	60000.00	759.21
323.15	60000.00	755.59
328.15	60000.00	751.94
333.15	60000.00	748.24
283.15	65000.00	788.07
288.15	65000.00	784.42
293.15	65000.00	780.83
298.15	65000.00	777.14
303.15	65000.00	773.7
308.15	65000.00	769.97
313.15	65000.00	766.39
318.15	65000.00	762.85
323.15	65000.00	759.26
328.15	65000.00	755.64
333.15	65000.00	752.02

Pressure, kPa	Temperature, K	Mass density, kg/m3
100.00	293.15	723.5
1000.00	293.15	724.3
5000.00	293.15	729.1
10000.00	293.15	734.5
15000.00	293.15	739.6
20000.00	293.15	744.5
25000.00	293.15	749.0
30000.00	293.15	753.3
35000.00	293.15	757.4
40000.00	293.15	761.3
45000.00	293.15	765.0
50000.00	293.15	768.6
55000.00	293.15	772.1
60000.00	293.15	775.4
65000.00	293.15	778.6
70000.00	293.15	781.7
80000.00	293.15	787.6
90000.00	293.15	793.2
100000.00	293.15	798.5
110000.00	293.15	803.6
120000.00	293.15	808.4
130000.00	293.15	812.9
140000.00	293.15	817.3
100.00	298.15	718.3
1000.00	298.15	719.5
5000.00	298.15	724.5
10000.00	298.15	730.2
15000.00	298.15	735.6
20000.00	298.15	740.5
25000.00	298.15	745.2
30000.00	298.15	749.6
35000.00	298.15	753.7
40000.00	298.15	757.7
45000.00	298.15	761.6
50000.00	298.15	765.2
55000.00	298.15	768.7
60000.00	298.15	772.1
65000.00	298.15	775.4
70000.00	298.15	778.5
80000.00	298.15	784.5
90000.00	298.15	790.3
100000.00	298.15	795.6
110000.00	298.15	800.8

120000.00	298.15	805.6
130000.00	298.15	810.3
140000.00	298.15	814.6
100.00	313.15	702.4
1000.00	313.15	703.7
5000.00	313.15	709.3
10000.00	313.15	715.7
15000.00	313.15	721.6
20000.00	313.15	727.1
25000.00	313.15	732.0
30000.00	313.15	737.1
35000.00	313.15	741.5
40000.00	313.15	745.8
45000.00	313.15	749.9
50000.00	313.15	753.8
55000.00	313.15	757.6
60000.00	313.15	761.3
65000.00	313.15	764.8
70000.00	313.15	768.1
80000.00	313.15	774.3
90000.00	313.15	780.4
100000.00	313.15	786.0
110000.00	313.15	791.4
120000.00	313.15	796.4
130000.00	313.15	801.3
140000.00	313.15	806.0
100.00	333.15	680.4
1000.00	333.15	682.0
5000.00	333.15	688.8
10000.00	333.15	696.3
15000.00	333.15	703.1
20000.00	333.15	709.3
25000.00	333.15	715.0
30000.00	333.15	720.4
35000.00	333.15	725.5
40000.00	333.15	730.2
45000.00	333.15	734.7
50000.00	333.15	739.0
55000.00	333.15	743.1
60000.00	333.15	747.0
65000.00	333.15	750.8
70000.00	333.15	754.3
80000.00	333.15	761.2
90000.00	333.15	767.7

100000.00	333.15	773.6
110000.00	333.15	779.3
120000.00	333.15	784.6
130000.00	333.15	789.8
140000.00	333.15	794.7
1000.00	353.19	659.5
5000.00	353.19	667.5
10000.00	353.19	676.4
15000.00	353.19	684.4
20000.00	353.19	691.5
25000.00	353.19	698.0
30000.00	353.19	704.0
35000.00	353.19	709.6
40000.00	353.19	714.8
45000.00	353.19	719.7
50000.00	353.19	724.5
55000.00	353.19	728.9
60000.00	353.19	733.1
65000.00	353.19	737.2
70000.00	353.19	741.1
80000.00	353.19	748.4
90000.00	353.19	755.3
100000.00	353.19	761.6
110000.00	353.19	767.7
120000.00	353.19	773.4
130000.00	353.19	778.8
140000.00	353.19	784.0
1000.00	373.24	635.5
5000.00	373.24	645.5
10000.00	373.24	656.1
15000.00	373.24	665.3
20000.00	373.24	673.4
25000.00	373.24	680.8
30000.00	373.24	687.6
35000.00	373.24	693.8
40000.00	373.24	699.6
45000.00	373.24	705.0
50000.00	373.24	710.1
55000.00	373.24	714.9
60000.00	373.24	719.5
65000.00	373.24	723.9
70000.00	373.24	728.1
80000.00	373.24	735.9
90000.00	373.24	743.2

100000.00	373.24	750.0
110000.00	373.24	756.3
120000.00	373.24	762.3
130000.00	373.24	768.0
140000.00	373.24	773.3
1000.00	393.29	609.5
5000.00	393.29	622.1
10000.00	393.29	634.9
15000.00	393.29	645.7
20000.00	393.29	655.1
25000.00	393.29	663.4
30000.00	393.29	671.0
35000.00	393.29	677.9
40000.00	393.29	684.3
45000.00	393.29	690.2
50000.00	393.29	695.7
55000.00	393.29	701.0
60000.00	393.29	705.9
65000.00	393.29	710.6
70000.00	393.29	715.1
80000.00	393.29	723.5
90000.00	393.29	731.3
100000.00	393.29	738.3
110000.00	393.29	745.2
120000.00	393.29	751.3
130000.00	393.29	757.4
140000.00	393.29	763.0

Reference

<https://www.doi.org/10.1016/j.jct.2014.08.023>

Pressure, kPa	Temperature, K	Mass density, kg/m3
100.00	293.15	723.5
1000.00	293.15	724.6
5000.00	293.15	729.4
10000.00	293.15	734.9
15000.00	293.15	740.0
20000.00	293.15	744.8
25000.00	293.15	749.4
30000.00	293.15	753.7
35000.00	293.15	757.7
40000.00	293.15	761.6
45000.00	293.15	765.3
50000.00	293.15	768.9

55000.00	293.15	772.4
60000.00	293.15	775.7
65000.00	293.15	778.9
70000.00	293.15	782.0
80000.00	293.15	787.9
90000.00	293.15	793.5
100000.00	293.15	798.8
110000.00	293.15	803.9
120000.00	293.15	808.7
130000.00	293.15	813.2
140000.00	293.15	817.6
100.00	298.15	718.3
1000.00	298.15	719.6
5000.00	298.15	724.5
10000.00	298.15	730.2
15000.00	298.15	735.6
20000.00	298.15	740.5
25000.00	298.15	745.2
30000.00	298.15	749.6
35000.00	298.15	753.7
40000.00	298.15	757.8
45000.00	298.15	761.6
50000.00	298.15	765.2
55000.00	298.15	768.8
60000.00	298.15	772.2
65000.00	298.15	775.4
70000.00	298.15	778.6
80000.00	298.15	784.6
90000.00	298.15	790.3
100000.00	298.15	795.7
110000.00	298.15	800.8
120000.00	298.15	805.6
130000.00	298.15	810.3
140000.00	298.15	814.6
100.00	313.15	702.4
1000.00	313.15	703.8
5000.00	313.15	709.4
10000.00	313.15	715.8
15000.00	313.15	721.7
20000.00	313.15	727.2
25000.00	313.15	732.1
30000.00	313.15	737.1
35000.00	313.15	741.6
40000.00	313.15	745.9

45000.00	313.15	750.0
50000.00	313.15	753.9
55000.00	313.15	757.7
60000.00	313.15	761.3
65000.00	313.15	764.8
70000.00	313.15	768.1
80000.00	313.15	774.4
90000.00	313.15	780.5
100000.00	313.15	786.1
110000.00	313.15	791.4
120000.00	313.15	796.5
130000.00	313.15	801.4
140000.00	313.15	806.0
100.00	333.15	680.5
1000.00	333.15	682.1
5000.00	333.15	688.9
10000.00	333.15	696.4
15000.00	333.15	703.2
20000.00	333.15	709.4
25000.00	333.15	715.1
30000.00	333.15	720.5
35000.00	333.15	725.6
40000.00	333.15	730.3
45000.00	333.15	734.8
50000.00	333.15	739.1
55000.00	333.15	743.1
60000.00	333.15	747.1
65000.00	333.15	750.9
70000.00	333.15	754.4
80000.00	333.15	761.3
90000.00	333.15	767.7
100000.00	333.15	773.7
110000.00	333.15	779.4
120000.00	333.15	784.7
130000.00	333.15	789.9
140000.00	333.15	794.8
1000.00	353.19	659.5
5000.00	353.19	667.6
10000.00	353.19	676.5
15000.00	353.19	684.4
20000.00	353.19	691.5
25000.00	353.19	698.0
30000.00	353.19	704.0
35000.00	353.19	709.7

40000.00	353.19	714.8
45000.00	353.19	719.7
50000.00	353.19	724.6
55000.00	353.19	728.9
60000.00	353.19	733.2
65000.00	353.19	737.2
70000.00	353.19	741.1
80000.00	353.19	748.4
90000.00	353.19	755.4
100000.00	353.19	761.6
110000.00	353.19	767.8
120000.00	353.19	773.4
130000.00	353.19	778.8
140000.00	353.19	784.0
1000.00	373.24	635.6
5000.00	373.24	645.5
10000.00	373.24	656.1
15000.00	373.24	665.3
20000.00	373.24	673.5
25000.00	373.24	680.8
30000.00	373.24	687.6
35000.00	373.24	693.8
40000.00	373.24	699.6
45000.00	373.24	705.0
50000.00	373.24	710.1
55000.00	373.24	714.9
60000.00	373.24	719.5
65000.00	373.24	723.9
70000.00	373.24	728.1
80000.00	373.24	735.9
90000.00	373.24	743.2
100000.00	373.24	750.0
110000.00	373.24	756.3
120000.00	373.24	762.3
130000.00	373.24	768.0
140000.00	373.24	773.3
1000.00	393.28	609.5
5000.00	393.28	622.1
10000.00	393.28	635.0
15000.00	393.28	645.8
20000.00	393.28	655.2
25000.00	393.28	663.5
30000.00	393.28	671.1
35000.00	393.28	677.9

40000.00	393.28	684.3
45000.00	393.28	690.2
50000.00	393.28	695.8
55000.00	393.28	701.1
60000.00	393.28	705.9
65000.00	393.28	710.6
70000.00	393.28	715.2
80000.00	393.28	723.5
90000.00	393.28	731.3
100000.00	393.28	738.4
110000.00	393.28	745.3
120000.00	393.28	751.4
130000.00	393.28	757.4
140000.00	393.28	763.1

Reference

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Speed of sound, m/s

Pressure, kPa - Liquid	Temperature, K - Liquid	Speed of sound, m/s - Liquid
100.00	293.15	1019.71
20000.00	293.15	1161.24
40000.00	293.15	1274.5
60000.00	293.15	1369.29
80000.00	293.15	1454.22
100000.00	293.15	1528.73
100.00	303.15	974.32
20000.00	303.15	1122.56
40000.00	303.15	1240.38
60000.00	303.15	1337.63
80000.00	303.15	1423.43
100000.00	303.15	1501.88
100.00	313.15	930.24
20000.00	313.15	1086.83
40000.00	313.15	1207.91
60000.00	313.15	1308.13
80000.00	313.15	1396.71
100000.00	313.15	1474.97
100.00	323.15	887.83
20000.00	323.15	1051.9
40000.00	323.15	1177.1

60000.00	323.15	1278.96
80000.00	323.15	1368.68
100000.00	323.15	1448.65
100.00	333.15	847.29
20000.00	333.15	1017.78
40000.00	333.15	1146.81
60000.00	333.15	1252.38
80000.00	333.15	1343.16
100000.00	333.15	1423.5
20000.00	343.15	984.53
40000.00	343.15	1117.79
60000.00	343.15	1226.4
80000.00	343.15	1318.72
100000.00	343.15	1400.75
20000.00	353.15	953.14
40000.00	353.15	1090.71
60000.00	353.15	1200.36
80000.00	353.15	1294.59
100000.00	353.15	1378.37

Reference

<https://www.doi.org/10.1016/j.fluid.2017.06.024>

Thermal conductivity, W/m/K

Temperature, K - Liquid	Pressure, kPa - Liquid	Thermal conductivity, W/m/K - Liquid
235.46	100.00	0.1259
235.54	100.00	0.1258
236.06	100.00	0.1259
236.15	30600.00	0.1369
236.25	5000.00	0.1280
236.29	10100.00	0.1300
236.33	5000.00	0.1275
236.44	20200.00	0.1331
236.45	20300.00	0.1337
236.53	29900.00	0.1364
236.67	5000.00	0.1277
236.70	10200.00	0.1305
236.80	20300.00	0.1337
236.92	30000.00	0.1363
237.15	10200.00	0.1302
254.40	20400.00	0.1276

254.47	30400.00	0.1314
254.66	5100.00	0.1220
254.73	100.00	0.1201
254.74	10000.00	0.1238
254.76	29500.00	0.1312
254.86	10200.00	0.1241
254.89	5300.00	0.1223
254.90	20100.00	0.1280
255.08	100.00	0.1205
255.13	10100.00	0.1236
255.14	5100.00	0.1221
255.26	100.00	0.1199
255.58	30100.00	0.1315
255.61	19900.00	0.1285
274.60	30000.00	0.1274
274.72	10100.00	0.1177
274.86	29900.00	0.1269
274.89	20000.00	0.1220
274.95	5100.00	0.1154
275.00	100.00	0.1129
275.02	10000.00	0.1178
275.17	30100.00	0.1271
275.19	5000.00	0.1150
275.25	10000.00	0.1175
275.30	100.00	0.1135
275.51	20100.00	0.1218
275.60	5000.00	0.1152
275.91	100.00	0.1131
276.04	20100.00	0.1219
294.58	100.00	0.1073
294.64	30100.00	0.1197
294.65	10000.00	0.1118
294.95	5000.00	0.1089
294.98	10000.00	0.1115
295.03	100.00	0.1071
295.13	20100.00	0.1161
295.14	30100.00	0.1199
295.27	30000.00	0.1198
295.32	10100.00	0.1111
295.35	5000.00	0.1085
295.60	20100.00	0.1160
295.70	100.00	0.1066
295.82	5000.00	0.1087
296.18	20100.00	0.1159

314.96	30000.00	0.1145
315.03	5000.00	0.1027
315.07	20000.00	0.1105
315.13	100.00	0.0993
315.24	30000.00	0.1144
315.26	20000.00	0.1099
315.35	10000.00	0.1050
315.39	5000.00	0.1023
315.48	100.00	0.0996
315.71	10000.00	0.1054
315.73	5100.00	0.1027
315.76	20000.00	0.1104
315.88	100.00	0.0994
315.98	30000.00	0.1144
316.26	10000.00	0.1050
334.99	10100.00	0.0998
335.01	5400.00	0.0959
335.11	20000.00	0.1038
335.23	100.00	0.0935
335.29	29900.00	0.1093
335.32	10100.00	0.0995
335.46	100.00	0.0932
335.51	30200.00	0.1094
335.68	19700.00	0.1043
335.72	30000.00	0.1096
335.84	5000.00	0.0960
335.84	10100.00	0.0995
335.94	100.00	0.0931
336.31	20100.00	0.1042
336.37	5200.00	0.0959
354.72	29900.00	0.1060
354.72	29900.00	0.1051
354.85	19700.00	0.1006
354.97	5000.00	0.0913
354.97	19800.00	0.1000
355.23	10100.00	0.0944
355.29	300.00	0.0865
355.33	10100.00	0.0944
355.45	5000.00	0.0916
355.47	20100.00	0.1001
355.56	5000.00	0.0910
355.66	300.00	0.0869
355.87	10000.00	0.0940
356.04	300.00	0.0866

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Abstract

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Legend

af:	Acentric Factor
affp:	Proton affinity
aight:	Autoignition Temperature
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
fl:	Lower Flammability Limit
flu:	Upper Flammability Limit
fpc:	Flash Point (Closed Cup Method)
fpo:	Flash Point (Open Cup Method)
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
kvisc:	Kinematic viscosity
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
rhof:	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
tc:	Critical Temperature
tcondl:	Liquid thermal conductivity
tf:	Normal melting (fusion) point
tt:	Triple Point Temperature
vc:	Critical Volume
zc:	Critical Compressibility

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