

# Propylene Carbonate

Other names:	1,2-PDC
	1,2-Propanediol carbonate
	1,2-Propanediol cyclic carbonate
	1,2-Propanediyl carbonate
	1,2-Propylene carbonate
	1,2-Propylene glycol carbonate
	1,3-Dioxolan-2-one, 4-methyl-
	1-Methylethylene carbonate
	4-Methyl-1,3-dioxol-2-one
	4-Methyl-1,3-dioxolan-2-one
	4-Methyl-2-oxo-1,3-dioxolane
	4-Methyldioxalone-2
	Arconate 5000
	Arconate propylene carbonate
	Carbonic acid cyclic methylethylene ester
	Carbonic acid, cyclic propylene ester
	Carbonic acid, propylene ester
	Cyclic 1,2-propylene carbonate
	Cyclic methylethylene carbonate
	Cyclic propylene carbonate
	Dipropylene carbonate
	NSC 11784
	PC-HP
	Propylene glycol cyclic carbonate
	Propylenester kyseliny uhlicite
	Solvenon PC
	Texacar PC
Inchi:	InChI=1S/C4H6O3/c1-3-2-6-4(5)7-3/h3H,2H2,1H3
InchiKey:	RUOJZAUFBMNUDX-UHFFFAOYSA-N
Formula:	C4H6O3
SMILES:	CC1COC(=O)O1
Mol. weight [g/mol]:	102.09
CAS:	108-32-7

## Physical Properties

Property code	Value	Unit	Source
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chl	-1799.70 ± 2.10	kJ/mol	NIST Webbook
chl	-1818.00 ± 1.00	kJ/mol	NIST Webbook
cpl	166.98	J/molxK	Volumes, Heat Capacities, and Compressibilities of the Mixtures of Acetonitrile with N,N-Dimethylacetamide and Propylene Carbonate
gf	-275.48	kJ/mol	Joback Method
hf	-563.70	kJ/mol	NIST Webbook
hf	-582.50 ± 2.50	kJ/mol	NIST Webbook
hfl	-631.80 ± 2.10	kJ/mol	NIST Webbook
hfl	-613.00 ± 1.00	kJ/mol	NIST Webbook
hfus	15.52	kJ/mol	Joback Method
hvap	49.30	kJ/mol	NIST Webbook
hvap	30.70 ± 2.10	kJ/mol	NIST Webbook
hvap	71.20 ± 0.60	kJ/mol	NIST Webbook
hvap	61.30 ± 0.10	kJ/mol	NIST Webbook
hvap	71.30	kJ/mol	NIST Webbook
hvap	61.50 ± 0.30	kJ/mol	NIST Webbook
log10ws	-0.43		Crippen Method
logp	0.542		Crippen Method
mcvol	69.670	ml/mol	McGowan Method
pc	5065.79	kPa	Joback Method
rinpol	929.00		NIST Webbook
rinpol	932.00		NIST Webbook
sl	218.60	J/molxK	NIST Webbook
sl	219.17	J/molxK	NIST Webbook
tb	515.05 ± 0.70	K	NIST Webbook
tb	513.20	K	NIST Webbook
tc	650.09	K	Joback Method
tf	218.62 ± 0.06	K	NIST Webbook
tf	222.95 ± 0.30	K	NIST Webbook
tf	222.95 ± 1.00	K	NIST Webbook
tt	218.66 ± 0.02	K	NIST Webbook
tt	224.85 ± 0.02	K	NIST Webbook
tt	224.85 ± 0.02	K	NIST Webbook
vc	0.249	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	187.91	J/molxK	613.07	Joback Method

cpg	195.81	J/mol×K	650.09	Joback Method
cpg	179.59	J/mol×K	576.04	Joback Method
cpg	170.87	J/mol×K	539.01	Joback Method
cpg	161.78	J/mol×K	501.98	Joback Method
cpg	152.33	J/mol×K	464.95	Joback Method
cpg	142.54	J/mol×K	427.92	Joback Method
cpl	184.10	J/mol×K	323.15	NIST Webbook
cpl	167.40	J/mol×K	298.15	NIST Webbook
cpl	175.00	J/mol×K	298.00	NIST Webbook
cpl	177.45	J/mol×K	323.15	Densities, Viscosities, Refractive Indices, and Heat Capacities of Poly(ethylene glycol-ran-propylene glycol) + Esters of Carbonic Acid at (293.15 and 313.15) K and at Atmospheric Pressure
cpl	175.87	J/mol×K	318.15	Densities, Viscosities, Refractive Indices, and Heat Capacities of Poly(ethylene glycol-ran-propylene glycol) + Esters of Carbonic Acid at (293.15 and 313.15) K and at Atmospheric Pressure
cpl	174.14	J/mol×K	313.15	Densities, Viscosities, Refractive Indices, and Heat Capacities of Poly(ethylene glycol-ran-propylene glycol) + Esters of Carbonic Acid at (293.15 and 313.15) K and at Atmospheric Pressure
cpl	172.22	J/mol×K	308.15	Densities, Viscosities, Refractive Indices, and Heat Capacities of Poly(ethylene glycol-ran-propylene glycol) + Esters of Carbonic Acid at (293.15 and 313.15) K and at Atmospheric Pressure

cpl	170.79	J/molxK	303.15	Densities, Viscosities, Refractive Indices, and Heat Capacities of Poly(ethylene glycol-ran-propylene glycol) + Esters of Carbonic Acid at (293.15 and 313.15) K and at Atmospheric Pressure
cpl	169.48	J/molxK	298.15	Densities, Viscosities, Refractive Indices, and Heat Capacities of Poly(ethylene glycol-ran-propylene glycol) + Esters of Carbonic Acid at (293.15 and 313.15) K and at Atmospheric Pressure
cpl	167.97	J/molxK	293.15	Densities, Viscosities, Refractive Indices, and Heat Capacities of Poly(ethylene glycol-ran-propylene glycol) + Esters of Carbonic Acid at (293.15 and 313.15) K and at Atmospheric Pressure
cpl	177.80	J/molxK	313.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure

cpl	166.28	J/mol×K	288.15	Densities, Viscosities, Refractive Indices, and Heat Capacities of Poly(ethylene glycol-ran-propylene glycol) + Esters of Carbonic Acid at (293.15 and 313.15) K and at Atmospheric Pressure
cpl	205.10	J/mol×K	423.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	170.49	J/mol×K	303.15	Vapor Pressure and Liquid Heat Capacity of Alkylene Carbonates
cpl	172.53	J/mol×K	313.15	Vapor Pressure and Liquid Heat Capacity of Alkylene Carbonates
cpl	174.57	J/mol×K	323.15	Vapor Pressure and Liquid Heat Capacity of Alkylene Carbonates
cpl	176.61	J/mol×K	333.15	Vapor Pressure and Liquid Heat Capacity of Alkylene Carbonates
cpl	178.66	J/mol×K	343.15	Vapor Pressure and Liquid Heat Capacity of Alkylene Carbonates
cpl	180.70	J/mol×K	353.15	Vapor Pressure and Liquid Heat Capacity of Alkylene Carbonates
cpl	167.60	J/mol×K	298.15	NIST Webbook

cpl	185.80	J/mol×K	373.15	Vapor Pressure and Liquid Heat Capacity of Alkylene Carbonates
cpl	188.86	J/mol×K	383.15	Vapor Pressure and Liquid Heat Capacity of Alkylene Carbonates
cpl	190.91	J/mol×K	393.15	Vapor Pressure and Liquid Heat Capacity of Alkylene Carbonates
cpl	174.10	J/mol×K	293.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	174.90	J/mol×K	298.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	175.70	J/mol×K	303.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure

cpl	176.70	J/molxK	308.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	202.30	J/molxK	413.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	179.00	J/molxK	318.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	180.00	J/molxK	323.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure

cpl	181.60	J/molxK	328.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	182.30	J/molxK	333.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	183.30	J/molxK	338.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	184.50	J/molxK	343.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure



cpl	185.10	J/molxK	348.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	186.20	J/molxK	353.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	187.40	J/molxK	358.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	189.50	J/molxK	363.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure

cpl	190.80	J/molxK	368.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	192.70	J/molxK	373.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	193.00	J/molxK	378.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	194.30	J/molxK	383.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure

cpl	195.60	J/molxK	388.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	197.30	J/molxK	393.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	198.20	J/molxK	398.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	199.90	J/molxK	403.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure

cpl	201.00	J/molxK	408.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
cpl	183.76	J/molxK	363.15	Vapor Pressure and Liquid Heat Capacity of Alkylene Carbonates
cpl	203.60	J/molxK	418.15	Excess Molar Enthalpies, Molar Heat Capacities, Densities, Viscosities, and Refractive Indices of Dimethyl Sulfoxide + Esters of Carbonic Acid at 308.15 K and Atmospheric Pressure
dvisc	0.0020730	Paxs	308.15	Densities and Viscosities of Binary Mixtures of Paraldehyde + Propylene Carbonate at (288.15, 293.15, 298.15, 303.15, and 308.15) K
dvisc	0.0022710	Paxs	303.15	Densities and Viscosities of Binary Mixtures of Paraldehyde + Propylene Carbonate at (288.15, 293.15, 298.15, 303.15, and 308.15) K
dvisc	0.0027620	Paxs	293.15	Densities and Viscosities of Binary Mixtures of Paraldehyde + Propylene Carbonate at (288.15, 293.15, 298.15, 303.15, and 308.15) K

dvisc	0.0030860	Paxs	288.15	Densities and Viscosities of Binary Mixtures of Paraldehyde + Propylene Carbonate at (288.15, 293.15, 298.15, 303.15, and 308.15) K
dvisc	0.0016200	Paxs	323.15	Volumetric and viscosimetric properties of N-methyl-2-pyrrolidone with .gamma.-butyrolactone and propylene carbonate
dvisc	0.0017500	Paxs	318.15	Volumetric and viscosimetric properties of N-methyl-2-pyrrolidone with .gamma.-butyrolactone and propylene carbonate
dvisc	0.0019100	Paxs	313.15	Volumetric and viscosimetric properties of N-methyl-2-pyrrolidone with .gamma.-butyrolactone and propylene carbonate
dvisc	0.0020800	Paxs	308.15	Volumetric and viscosimetric properties of N-methyl-2-pyrrolidone with .gamma.-butyrolactone and propylene carbonate
dvisc	0.0022700	Paxs	303.15	Volumetric and viscosimetric properties of N-methyl-2-pyrrolidone with .gamma.-butyrolactone and propylene carbonate
dvisc	0.0025200	Paxs	298.15	Volumetric and viscosimetric properties of N-methyl-2-pyrrolidone with .gamma.-butyrolactone and propylene carbonate
dvisc	0.0025000	Paxs	298.15	Viscosity Behavior of Some Oxygen Containing Compounds

dvisc	0.0030860	Paxs	288.15	Viscosity Behavior of Some Oxygen Containing Compounds
dvisc	0.0020730	Paxs	308.15	Viscosity Behavior of Some Oxygen Containing Compounds
dvisc	0.0024990	Paxs	298.15	Densities and Viscosities of Binary Mixtures of Paraldehyde + Propylene Carbonate at (288.15, 293.15, 298.15, 303.15, and 308.15) K
hfust	9.62	kJ/mol	224.85	NIST Webbook
hfust	9.62	kJ/mol	218.20	NIST Webbook
hfust	9.62	kJ/mol	218.20	NIST Webbook
hfust	8.96	kJ/mol	220.30	NIST Webbook
hfust	9.62	kJ/mol	224.85	NIST Webbook
hfust	8.01	kJ/mol	156.50	NIST Webbook
hvapt	57.80	kJ/mol	415.00	NIST Webbook
hvapt	54.40	kJ/mol	439.00	NIST Webbook
hvapt	55.20	kJ/mol	415.00	NIST Webbook
hvapt	55.20	kJ/mol	323.00	NIST Webbook
hvapt	55.23	kJ/mol	423.00	NIST Webbook
hvapt	53.00	kJ/mol	415.00	NIST Webbook
hvapt	33.80	kJ/mol	346.50	NIST Webbook
pvap	50.00	kPa	485.91	Phase Equilibrium and Physical Properties for the Purification of Propylene Carbonate (PC) and $\gamma$ -Butyrolactone (GBL)
pvap	12.69	kPa	438.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	10.78	kPa	433.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	8.96	kPa	428.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide

pvap	7.45	kPa	423.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	6.23	kPa	418.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	5.15	kPa	413.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	4.26	kPa	408.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	14.81	kPa	443.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	3.48	kPa	403.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	2.83	kPa	398.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	2.28	kPa	393.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	17.81	kPa	448.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	1.17	kPa	378.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	0.92	kPa	373.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	0.72	kPa	368.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	0.56	kPa	363.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	0.44	kPa	358.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	0.33	kPa	353.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide

pvap	0.25	kPa	348.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	1.86	kPa	388.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	0.22	kPa	348.15	Low pressure methane solubility in lithium-ion batteries based solvents and electrolytes as a function of temperature. Measurement and prediction
pvap	0.18	kPa	343.15	Low pressure methane solubility in lithium-ion batteries based solvents and electrolytes as a function of temperature. Measurement and prediction
pvap	0.12	kPa	338.15	Low pressure methane solubility in lithium-ion batteries based solvents and electrolytes as a function of temperature. Measurement and prediction
pvap	0.08	kPa	331.22	Low pressure methane solubility in lithium-ion batteries based solvents and electrolytes as a function of temperature. Measurement and prediction
pvap	0.10	kPa	332.70	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	20.50	kPa	453.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide



pvap	24.08	kPa	458.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	0.29	kPa	353.15	Low pressure methane solubility in lithium-ion batteries based solvents and electrolytes as a function of temperature. Measurement and prediction
pvap	27.96	kPa	463.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	0.06	kPa	327.12	Low pressure methane solubility in lithium-ion batteries based solvents and electrolytes as a function of temperature. Measurement and prediction
pvap	33.01	kPa	468.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	0.22	kPa	344.90	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	37.77	kPa	473.15	Vapor Pressures of Propylene Carbonate and N,N-Dimethylacetamide
pvap	4.00	kPa	407.97	Phase Equilibrium and Physical Properties for the Purification of Propylene Carbonate (PC) and $\gamma$ -Butyrolactone (GBL)
pvap	10.00	kPa	432.45	Phase Equilibrium and Physical Properties for the Purification of Propylene Carbonate (PC) and $\gamma$ -Butyrolactone (GBL)

pvap	12.00	kPa	437.77	Phase Equilibrium and Physical Properties for the Purification of Propylene Carbonate (PC) and $\gamma$ -Butyrolactone (GBL)
pvap	0.08	kPa	329.60	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	20.00	kPa	453.60	Phase Equilibrium and Physical Properties for the Purification of Propylene Carbonate (PC) and $\gamma$ -Butyrolactone (GBL)
pvap	30.00	kPa	467.23	Phase Equilibrium and Physical Properties for the Purification of Propylene Carbonate (PC) and $\gamma$ -Butyrolactone (GBL)
pvap	0.18	kPa	341.80	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	0.17	kPa	340.80	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	0.15	kPa	338.80	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	8.50e-03	kPa	298.40	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	0.01	kPa	303.30	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates

pvap	40.00	kPa	477.53	Phase Equilibrium and Physical Properties for the Purification of Propylene Carbonate (PC) and $\gamma$ -Butyrolactone (GBL)
pvap	0.02	kPa	311.30	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	0.03	kPa	313.20	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	0.04	kPa	318.20	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	0.05	kPa	321.20	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	0.05	kPa	322.70	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	0.06	kPa	324.20	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	0.07	kPa	326.60	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	0.02	kPa	308.20	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	0.13	kPa	335.70	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates
pvap	0.14	kPa	337.70	Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates

rfi	1.42095		293.15	The volumetric properties of (1,2-propanediol carbonate + benzene, or toluene, or styrene) binary mixtures at temperatures from T = 293.15 K to T = 353.15 K
rfi	1.42030		298.15	Viscosities, Ultrasonic Velocities at (288.15 and 298.15) K, and Refractive Indices at (298.15) K of Binary Mixtures of 2,4,6-Trimethyl-1,3,5-trioxane with Dimethyl Carbonate, Diethyl Carbonate, and Propylene Carbonate
rfi	1.41900		298.15	Liquid-liquid equilibrium study for the system (water + phosphoric acid + propylene carbonate) at different temperatures
rhoI	1151.92	kg/m3	343.15	Self-Diffusion Coefficients and Related Transport Properties for a Number of Fragile Ionic Liquids
rhoI	1180.55	kg/m3	303.15	Excess volumes and partial molar volumes of binary mixtures of 1,2-propanediol carbonate with xylene in the temperature range of (293.15 to 353.15) K

rhoI	1171.96	kg/m3	323.15	Density, electrical conductivity, viscosity and excess properties of 1-butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide + propylene carbonate binary mixtures
rhoI	1188.89	kg/m3	308.15	Excess Properties of Binary Mixtures of Esters of Carbonic Acid + Three Aryl Alcohols at 308.15 K
rhoI	1204.00	kg/m3	298.15	Isobaric Vapor-liquid Equilibrium for Three Binary Systems of Ethyl Acetate + Propyl Acetate, Ethyl Acetate + Propylene Carbonate, and Propyl Acetate + Propylene Carbonate at 101.3 kPa
rhoI	1130.73	kg/m3	363.15	Self-Diffusion Coefficients and Related Transport Properties for a Number of Fragile Ionic Liquids
rhoI	1141.33	kg/m3	353.15	Self-Diffusion Coefficients and Related Transport Properties for a Number of Fragile Ionic Liquids
rhoI	1180.56	kg/m3	303.15	Excess volumes and partial molar volumes of binary mixtures of 1,2-propanediol carbonate with xylene in the temperature range of (293.15 to 353.15) K

rhoI	1162.50	kg/m3	333.15	Self-Diffusion Coefficients and Related Transport Properties for a Number of Fragile Ionic Liquids
rhoI	1173.08	kg/m3	323.15	Self-Diffusion Coefficients and Related Transport Properties for a Number of Fragile Ionic Liquids
rhoI	1183.67	kg/m3	313.15	Self-Diffusion Coefficients and Related Transport Properties for a Number of Fragile Ionic Liquids
rhoI	1194.27	kg/m3	303.15	Self-Diffusion Coefficients and Related Transport Properties for a Number of Fragile Ionic Liquids
rhoI	1199.58	kg/m3	298.15	Self-Diffusion Coefficients and Related Transport Properties for a Number of Fragile Ionic Liquids
rhoI	1204.89	kg/m3	293.15	Self-Diffusion Coefficients and Related Transport Properties for a Number of Fragile Ionic Liquids
rhoI	1215.55	kg/m3	283.15	Self-Diffusion Coefficients and Related Transport Properties for a Number of Fragile Ionic Liquids

rhoI	1220.90	kg/m3	278.15	Self-Diffusion Coefficients and Related Transport Properties for a Number of Fragile Ionic Liquids
rhoI	1226.25	kg/m3	273.15	Self-Diffusion Coefficients and Related Transport Properties for a Number of Fragile Ionic Liquids
rhoI	1197.60	kg/m3	298.15	Isobaric Vapor Liquid Equilibria for Binary Systems of Diethyl Carbonate + Propylene Carbonate, Diethyl Carbonate + Propylene Glycol, and Ethanol + Propylene Carbonate at 101.3 kPa
rhoI	1199.49	kg/m3	298.15	Ionic molar volumes in methanol mixtures with acetonitrile, N,N-dimethylformamide and propylene carbonate at T = 298.15 K
rhoI	1177.55	kg/m3	318.15	Density, electrical conductivity, viscosity and excess properties of 1-butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide + propylene carbonate binary mixtures
rhoI	1183.11	kg/m3	313.15	Density, electrical conductivity, viscosity and excess properties of 1-butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide + propylene carbonate binary mixtures

rhoI	1188.57	kg/m3	308.15	Density, electrical conductivity, viscosity and excess properties of 1-butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide + propylene carbonate binary mixtures
rhoI	1194.00	kg/m3	303.15	Density, electrical conductivity, viscosity and excess properties of 1-butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide + propylene carbonate binary mixtures
rhoI	1199.02	kg/m3	298.15	Density, electrical conductivity, viscosity and excess properties of 1-butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide + propylene carbonate binary mixtures
rhoI	1204.81	kg/m3	293.15	Density, electrical conductivity, viscosity and excess properties of 1-butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide + propylene carbonate binary mixtures
rhoI	1141.60	kg/m3	353.15	Density, conductivity, viscosity, and excess properties of (pyrrolidinium nitrate-based Protic Ionic Liquid + propylene carbonate) binary mixture
rhoI	1152.30	kg/m3	343.15	Density, conductivity, viscosity, and excess properties of (pyrrolidinium nitrate-based Protic Ionic Liquid + propylene carbonate) binary mixture



rhoI	1162.90	kg/m3	333.15	Density, conductivity, viscosity, and excess properties of (pyrrolidinium nitrate-based Protic Ionic Liquid + propylene carbonate) binary mixture
rhoI	1173.40	kg/m3	323.15	Density, conductivity, viscosity, and excess properties of (pyrrolidinium nitrate-based Protic Ionic Liquid + propylene carbonate) binary mixture
rhoI	1183.90	kg/m3	313.15	Density, conductivity, viscosity, and excess properties of (pyrrolidinium nitrate-based Protic Ionic Liquid + propylene carbonate) binary mixture
rhoI	1194.50	kg/m3	303.15	Density, conductivity, viscosity, and excess properties of (pyrrolidinium nitrate-based Protic Ionic Liquid + propylene carbonate) binary mixture
rhoI	1205.20	kg/m3	293.15	Density, conductivity, viscosity, and excess properties of (pyrrolidinium nitrate-based Protic Ionic Liquid + propylene carbonate) binary mixture

rhoI	1216.30	kg/m3	283.15	Density, conductivity, viscosity, and excess properties of (pyrrolidinium nitrate-based Protic Ionic Liquid + propylene carbonate) binary mixture
rhoI	1088.38	kg/m3	353.15	Excess volumes and partial molar volumes of binary mixtures of 1,2-propanediol carbonate with xylene in the temperature range of (293.15 to 353.15) K
rhoI	1105.98	kg/m3	343.15	Excess volumes and partial molar volumes of binary mixtures of 1,2-propanediol carbonate with xylene in the temperature range of (293.15 to 353.15) K
rhoI	1123.99	kg/m3	333.15	Excess volumes and partial molar volumes of binary mixtures of 1,2-propanediol carbonate with xylene in the temperature range of (293.15 to 353.15) K
rhoI	1142.43	kg/m3	323.15	Excess volumes and partial molar volumes of binary mixtures of 1,2-propanediol carbonate with xylene in the temperature range of (293.15 to 353.15) K
rhoI	1161.28	kg/m3	313.15	Excess volumes and partial molar volumes of binary mixtures of 1,2-propanediol carbonate with xylene in the temperature range of (293.15 to 353.15) K

rhoI	1200.25	kg/m <sup>3</sup>	293.15	Excess volumes and partial molar volumes of binary mixtures of 1,2-propanediol carbonate with xylene in the temperature range of (293.15 to 353.15) K
sfust	42.80	J/mol×K	224.85	NIST Webbook
speedsl	1443.40	m/s	298.15	Volumetric and compressibility properties of liquid water as a solute in glycolic, propylene carbonate, and tetramethylurea solutions at T = 298.15 K

## Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.76786e+01
Coeff. B	-7.84783e+03
Coeff. C	8.60430e+01
Temperature range (K), min.	365.21
Temperature range (K), max.	548.53

## Datasets

### Viscosity, Pa\*s

Temperature, K - Liquid	Pressure, kPa - Liquid	Viscosity, Pa*s - Liquid
303.15	101.30	0.0021494

Reference

<https://www.doi.org/10.1021/je034204h>

## Sources

Measurement and Correlation of the Electrical Conductivity of the Ionic Liquid  $\text{C}_6\text{H}_5\text{N}^+\text{PF}_6^-$  with Physical Solubility Parameters of Organic Compounds: Carbonate at High Pressures: Solubilities of sulfonyl fluoride in propylene carbonate, tributyl phosphates and N-lithium salts in five non-aqueous solvents and in a few of their binary mixtures: A study for the system (water + phosphoric acid + propylene carbonate) at different temperatures: Vapour pressure and enthalpy of vaporization of cyclic alkylene carbonates: Liquid-Liquid Interfacial Properties of Binary and Ternary Mixtures of Methane in Propylene Carbonate: Phase Equilibria in Binary Mixtures of Water with Cyclic Alkylene Carbonates: Ionic molar volumes in methanol mixtures with acetonitrile, N-methyl-2-pyrrolidone and Propylene Carbonate: Attractive Forces and Heat Capacity of Alkylene Carbonates: Volumetric and compressibility properties of liquid water as a solute in cyclohexylpropylene carbonate, expanded against principle calculations for 0.98–1.5 g/cm<sup>3</sup> of the thermodynamic Major Heat Capacities, Densities, Viscosities, and Refractive indices of Dimethylsiloxane and excess quantities of Carbazole and at 500–75 K and Atmospheric Pressure: Polymer-carbonate systems mixture: 1,2-diphenylethane-1,2-diol with Xylene lithium ion battery electrolyte solvents to solve water toxicity of the low volatilities present in Polyethylene Glycole Organic Solvent Systems: Propylene Glycol, Propargate and N,N-Dimethylacetamide: The Solubility of Hydrogen Sulfide and Carbon Dioxide in Propylene Carbonate: Viscosity, and Excess Properties of Binary Liquid Mixtures of Propylene and Methylcyclopentane and Mixtures of Paraldehyde + Propylene Carbonate at 228.15 to 298.15 K; Gas mixture of C<sub>3</sub> carboxylic acids and heavier than air gases: Mixtures 298.2 K: Ionic Liquids with Polar Solvents: Densities and Excess Molar Volumes for Binary Mixtures of Ionic Liquid  $\text{VClO}_4/\text{C}_6\text{H}_5\text{N}^+\text{PF}_6^-$  and Viscosities at 298.15 K and 303.15 K and Refractive Indices at 298.15 K: Composites of the Carbon Dioxide-Ethyl Propyrate and Carbon Dioxide-Ethyl Propyrate Carbonate, Some physical properties of the mixtures of Ketones and Temperatures from 273.15 to 313.15 K and Propylene Carbonate: Carbonate Vapor Pressure: Volumetric and viscosimetric properties of N-methyl-2-pyrrolidone with 1,4-dioxane, Ethyl lactate and Systems: Heptanate-Benzene + Solvent (1,5)-Dichlorobenzene and Related Triangular Properties for a Number of Fertilizer and Gases (30.5, 100, 125.2) K: Indices, and Heat Capacities of Polyethylene glycol-ran-propylene glycol + Esters of Carbonic Acid at (295.15 and 313.15) K and at 0.1 MPa: Propanedol carbonate + benzene, 6-tetradecabenzofuran: Equilibrium mixtures of three binary systems: PEEO, Acetate ± Benzene, Acetate, Ethyl Acetate + Propylene Carbonate, and Propyl Acetate + Propylene Carbonate at 101.3 kPa:

<https://www.doi.org/10.1021/acs.jced.7b00646>

<https://www.doi.org/10.1021/je1002708>

<https://www.doi.org/10.1016/j.jct.2018.05.007>

<https://www.doi.org/10.1016/j.fluid.2017.12.034>

<https://www.doi.org/10.1016/j.jct.2016.09.008>

[https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)

<https://www.doi.org/10.1016/j.fluid.2008.03.013>

<https://www.doi.org/10.1021/je500113a>

<https://www.doi.org/10.1021/je500849m>

<https://www.doi.org/10.1021/je700689w>

<https://www.doi.org/10.1016/j.jct.2014.02.021>

<https://www.doi.org/10.1021/je034173a>

<https://www.doi.org/10.1016/j.ijct.2007.05.010>

<https://www.doi.org/10.1016/j.ijct.2008.05.001>

<https://www.doi.org/10.1021/je050444a>

<https://www.doi.org/10.1016/j.ijct.2012.11.020>

<https://www.doi.org/10.1016/j.ijct.2005.01.017>

<https://www.doi.org/10.1016/j.ijct.2014.07.004>

<https://www.doi.org/10.1021/je4007713>

<https://www.doi.org/10.1021/je049950a>

<https://www.doi.org/10.1021/acs.iced.5b00669>

<https://www.doi.org/10.1021/je034204h>

<https://www.doi.org/10.1021/je0496903>

<https://www.doi.org/10.1016/j.ijct.2017.11.001>

<https://www.doi.org/10.1021/je800468h>

<https://www.doi.org/10.1021/je1002237>

<https://www.doi.org/10.1021/je050183a>

<https://www.doi.org/10.1021/je101086r>

<https://www.doi.org/10.1021/je1005483>

<https://www.doi.org/10.1021/je200309v>

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

<https://www.doi.org/10.1016/j.ijct.2015.08.013>

<https://www.doi.org/10.1021/je500442m>

<https://www.doi.org/10.1021/acs.iced.6b00021>

<https://www.doi.org/10.1021/ie900307z>

[https://en.wikipedia.org/wiki/Joback\\_method](https://en.wikipedia.org/wiki/Joback_method)

<https://www.doi.org/10.1016/j.ijct.2005.03.019>

<https://www.doi.org/10.1021/acs.jced.7b01107>



**tt:** Triple Point Temperature  
**vc:** Critical Volume

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