

Ethane, pentafluoro-

Other names:	1,1,1,2,2-Pentafluoroethane C2F5H FC-125 Freon 125 Genetron HFC 125 Pentafluoroethane R-125 REFRIGERANT-125
Inchi:	InChI=1S/C2HF5/c3-1(4)2(5,6)7/h1H
InchiKey:	GTLACDSXYULKMZ-UHFFFAOYSA-N
Formula:	C2HF5
SMILES:	FC(F)C(F)(F)F
Mol. weight [g/mol]:	120.02
CAS:	354-33-6

Physical Properties

Property code	Value	Unit	Source
gf	-1007.69	kJ/mol	Joback Method
hf	-1079.19	kJ/mol	Joback Method
hfus	5.40	kJ/mol	Joback Method
hvap	14.28	kJ/mol	Joback Method
log10ws	-1.64		Crippen Method
logp	1.814		Crippen Method
mcvol	47.890	ml/mol	McGowan Method
pc	3617.00	kPa	Critical Parameters Measurements of Four HFE + HFC Binary Systems: Pentafluoromethoxyethane (HFE-245Mc) + Pentafluoroethane (HFC-125), + 1,1,1,2-Tetrafluoroethane (HFC-134a), + 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea), and + 1,1,1,2,3,3-Hexafluoropropane (HFC-236ea)
pc	3519.00 ± 150.00	kPa	NIST Webbook

pc	3617.00	kPa	Critical Properties of Four HFE + HFC Binary Systems: Trifluoromethoxymethane (HFE-143m) + Pentafluoroethane (HFC-125), + 1,1,1,2-Tetrafluoroethane (HFC-134a), + 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea), and + 1,1,1,2,3,3-Hexafluoropropane (HFC-236ea)
pc	3629.00 ± 6.00	kPa	NIST Webbook
pc	3619.90 ± 3.00	kPa	NIST Webbook
pc	3620.00 ± 7.00	kPa	NIST Webbook
pc	3619.00 ± 5.00	kPa	NIST Webbook
rhoc	570.94 ± 8.40	kg/m ³	NIST Webbook
rhoc	572.00 ± 6.00	kg/m ³	NIST Webbook
rhoc	567.70 ± 2.40	kg/m ³	NIST Webbook
tb	226.00 ± 2.00	K	NIST Webbook
tb	223.00 ± 6.00	K	NIST Webbook
tb	225.00 ± 4.00	K	NIST Webbook
tb	224.70 ± 0.70	K	NIST Webbook
tb	225.00 ± 3.00	K	NIST Webbook
tb	227.00 ± 4.00	K	NIST Webbook
tb	224.60	K	NIST Webbook
tb	231.00 ± 3.00	K	NIST Webbook
tb	231.00 ± 2.00	K	NIST Webbook
tb	224.70 ± 2.00	K	NIST Webbook
tb	232.00 ± 3.00	K	NIST Webbook
tc	339.17 ± 0.03	K	NIST Webbook
tc	339.40 ± 0.70	K	NIST Webbook
tc	339.16 ± 0.04	K	NIST Webbook
tc	339.22 ± 0.30	K	NIST Webbook
tf	170.00 ± 3.00	K	NIST Webbook
vc	0.221	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	93.14	J/mol×K	300.85	Joback Method
cpg	83.92	J/mol×K	258.84	Joback Method
cpg	88.64	J/mol×K	279.84	Joback Method
cpg	97.43	J/mol×K	321.85	Joback Method

cpg	101.51	J/mol×K	342.85	Joback Method
cpg	105.39	J/mol×K	363.85	Joback Method
cpg	78.98	J/mol×K	237.84	Joback Method
cpl	154.83	J/mol×K	310.00	Measurements of the Isobaric Specific Heat Capacity for 1,1,1-Trifluoroethane (R143a), Pentafluoroethane (R125), and Difluoromethane (R32) in the Liquid Phase
cpl	282.05	J/mol×K	350.00	Measurements of the Isobaric Specific Heat Capacity for 1,1,1-Trifluoroethane (R143a), Pentafluoroethane (R125), and Difluoromethane (R32) in the Liquid Phase
cpl	242.44	J/mol×K	345.00	Measurements of the Isobaric Specific Heat Capacity for 1,1,1-Trifluoroethane (R143a), Pentafluoroethane (R125), and Difluoromethane (R32) in the Liquid Phase
cpl	183.63	J/mol×K	330.00	Measurements of the Isobaric Specific Heat Capacity for 1,1,1-Trifluoroethane (R143a), Pentafluoroethane (R125), and Difluoromethane (R32) in the Liquid Phase
cpl	193.23	J/mol×K	335.00	Measurements of the Isobaric Specific Heat Capacity for 1,1,1-Trifluoroethane (R143a), Pentafluoroethane (R125), and Difluoromethane (R32) in the Liquid Phase

cpl	217.24	J/molxK	340.00	Measurements of the Isobaric Specific Heat Capacity for 1,1,1-Trifluoroethane (R143a), Pentafluoroethane (R125), and Difluoromethane (R32) in the Liquid Phase
cpl	171.63	J/molxK	325.00	Measurements of the Isobaric Specific Heat Capacity for 1,1,1-Trifluoroethane (R143a), Pentafluoroethane (R125), and Difluoromethane (R32) in the Liquid Phase
cpl	163.23	J/molxK	320.00	Measurements of the Isobaric Specific Heat Capacity for 1,1,1-Trifluoroethane (R143a), Pentafluoroethane (R125), and Difluoromethane (R32) in the Liquid Phase
cpl	159.63	J/molxK	315.00	Measurements of the Isobaric Specific Heat Capacity for 1,1,1-Trifluoroethane (R143a), Pentafluoroethane (R125), and Difluoromethane (R32) in the Liquid Phase
cpl	182.43	J/molxK	330.00	Measurements of the Isobaric Specific Heat Capacity for 1,1,1-Trifluoroethane (R143a), Pentafluoroethane (R125), and Difluoromethane (R32) in the Liquid Phase

cpl	212.44	J/mol×K	340.00	Measurements of the Isobaric Specific Heat Capacity for 1,1,1-Trifluoroethane (R143a), Pentafluoroethane (R125), and Difluoromethane (R32) in the Liquid Phase
hfust	2.25	kJ/mol	172.60	NIST Webbook
hfust	2.25	kJ/mol	172.60	NIST Webbook
hvapt	22.80	kJ/mol	175.00	NIST Webbook
hvapt	20.30	kJ/mol	215.00	NIST Webbook
hvapt	21.90	kJ/mol	190.00	NIST Webbook
hvapt	20.90	kJ/mol	205.00	NIST Webbook
pvap	2008.50	kPa	313.15	Measurements of Bubble Point Pressures for the Binary Mixture of Pentafluoroethane with Chloropentafluoroethane
pvap	908.80	kPa	283.15	Isothermal Vapor-Liquid Equilibrium of (Pentafluoroethane + Fluoroethane) at Temperatures between (265.15 and 303.15) K Obtained with a Recirculating Still
pvap	1205.00	kPa	293.15	Isothermal Vapor-Liquid Equilibrium of (Pentafluoroethane + Fluoroethane) at Temperatures between (265.15 and 303.15) K Obtained with a Recirculating Still
pvap	1567.00	kPa	303.15	Isothermal Vapor-Liquid Equilibrium of (Pentafluoroethane + Fluoroethane) at Temperatures between (265.15 and 303.15) K Obtained with a Recirculating Still

pvap	2006.00	kPa	313.15	Isothermal Vapor-Liquid Equilibrium of (Pentafluoroethane + Fluoroethane) at Temperatures between (265.15 and 303.15) K Obtained with a Recirculating Still
pvap	482.40	kPa	263.15	Measurement of Vapor-Liquid Equilibria for the Pentafluoroethane + Propene Binary System from (263.15 to 323.15) K
pvap	782.10	kPa	278.15	Measurement of Vapor-Liquid Equilibria for the Pentafluoroethane + Propene Binary System from (263.15 to 323.15) K
pvap	1205.60	kPa	293.15	Measurement of Vapor-Liquid Equilibria for the Pentafluoroethane + Propene Binary System from (263.15 to 323.15) K
pvap	1773.20	kPa	308.15	Measurement of Vapor-Liquid Equilibria for the Pentafluoroethane + Propene Binary System from (263.15 to 323.15) K
pvap	2531.10	kPa	323.15	Measurement of Vapor-Liquid Equilibria for the Pentafluoroethane + Propene Binary System from (263.15 to 323.15) K
pvap	228.10	kPa	243.15	Measurements of Bubble Point Pressures for the Binary Mixture of Pentafluoroethane with Chloropentafluoroethane

pvap	337.30	kPa	253.15	Measurements of Bubble Point Pressures for the Binary Mixture of Pentafluoroethane with Chloropentafluoroethane
pvap	482.50	kPa	263.15	Measurements of Bubble Point Pressures for the Binary Mixture of Pentafluoroethane with Chloropentafluoroethane
pvap	670.50	kPa	273.15	Measurements of Bubble Point Pressures for the Binary Mixture of Pentafluoroethane with Chloropentafluoroethane
pvap	908.80	kPa	283.15	Measurements of Bubble Point Pressures for the Binary Mixture of Pentafluoroethane with Chloropentafluoroethane
pvap	1205.20	kPa	293.15	Measurements of Bubble Point Pressures for the Binary Mixture of Pentafluoroethane with Chloropentafluoroethane
pvap	1568.50	kPa	303.15	Measurements of Bubble Point Pressures for the Binary Mixture of Pentafluoroethane with Chloropentafluoroethane
pvap	714.30	kPa	275.15	Isothermal Vapor-Liquid Equilibrium of (Pentafluoroethane + Fluoroethane) at Temperatures between (265.15 and 303.15) K Obtained with a Recirculating Still
pvap	2536.80	kPa	323.15	Measurements of Bubble Point Pressures for the Binary Mixture of Pentafluoroethane with Chloropentafluoroethane

pvap	3170.30	kPa	333.15	Measurements of Bubble Point Pressures for the Binary Mixture of Pentafluoroethane with Chloropentafluoroethane
pvap	517.00	kPa	265.15	Vapor-Liquid Equilibrium Data for the Binary Mixture Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) of an Alternative Refrigerant
pvap	714.30	kPa	275.15	Vapor-Liquid Equilibrium Data for the Binary Mixture Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) of an Alternative Refrigerant
pvap	908.80	kPa	283.15	Vapor-Liquid Equilibrium Data for the Binary Mixture Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) of an Alternative Refrigerant
pvap	1205.00	kPa	293.15	Vapor-Liquid Equilibrium Data for the Binary Mixture Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) of an Alternative Refrigerant
pvap	1567.00	kPa	303.15	Vapor-Liquid Equilibrium Data for the Binary Mixture Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) of an Alternative Refrigerant

pvap	228.50	kPa	243.15	Vapor-Liquid Equilibria for the Binary System Pentafluoroethane (HFC-125) + Isobutane (HC-600a) at Temperatures from (243.15 to 333.15) K
pvap	337.90	kPa	253.15	Vapor-Liquid Equilibria for the Binary System Pentafluoroethane (HFC-125) + Isobutane (HC-600a) at Temperatures from (243.15 to 333.15) K
pvap	483.10	kPa	263.15	Vapor-Liquid Equilibria for the Binary System Pentafluoroethane (HFC-125) + Isobutane (HC-600a) at Temperatures from (243.15 to 333.15) K
pvap	650.10	kPa	272.15	Vapor-Liquid Equilibria for the Binary System Pentafluoroethane (HFC-125) + Isobutane (HC-600a) at Temperatures from (243.15 to 333.15) K
pvap	908.80	kPa	283.15	Vapor-Liquid Equilibria for the Binary System Pentafluoroethane (HFC-125) + Isobutane (HC-600a) at Temperatures from (243.15 to 333.15) K
pvap	1204.50	kPa	293.15	Vapor-Liquid Equilibria for the Binary System Pentafluoroethane (HFC-125) + Isobutane (HC-600a) at Temperatures from (243.15 to 333.15) K

pvap	1566.80	kPa	303.15	Vapor-Liquid Equilibria for the Binary System Pentafluoroethane (HFC-125) + Isobutane (HC-600a) at Temperatures from (243.15 to 333.15) K
pvap	2005.60	kPa	313.15	Vapor-Liquid Equilibria for the Binary System Pentafluoroethane (HFC-125) + Isobutane (HC-600a) at Temperatures from (243.15 to 333.15) K
pvap	2533.20	kPa	323.15	Vapor-Liquid Equilibria for the Binary System Pentafluoroethane (HFC-125) + Isobutane (HC-600a) at Temperatures from (243.15 to 333.15) K
pvap	3167.40	kPa	333.15	Vapor-Liquid Equilibria for the Binary System Pentafluoroethane (HFC-125) + Isobutane (HC-600a) at Temperatures from (243.15 to 333.15) K
pvap	517.00	kPa	265.15	Isothermal Vapor-Liquid Equilibrium of (Pentafluoroethane + Fluoroethane) at Temperatures between (265.15 and 303.15) K Obtained with a Recirculating Still
pvap	3157.00	kPa	333.15	Vapor-Liquid Equilibria of the Binary n-Butane (HC-600) + Difluoromethane (HFC-32), + Pentafluoroethane (HFC-125), + 1,1,1,2-Tetrafluoroethane (HFC-134a) Mixture Systems

pvap	2505.00	kPa	323.15	Vapor-Liquid Equilibria of the Binary n-Butane (HC-600) + Difluoromethane (HFC-32), + Pentafluoroethane (HFC-125), + 1,1,1,2-Tetrafluoroethane (HFC-134a) Mixture Systems
pvap	1988.00	kPa	313.15	Vapor-Liquid Equilibria of the Binary n-Butane (HC-600) + Difluoromethane (HFC-32), + Pentafluoroethane (HFC-125), + 1,1,1,2-Tetrafluoroethane (HFC-134a) Mixture Systems
pvap	2004.90	kPa	313.15	Measurement of Vapor-Liquid Equilibria for the Binary Mixture of Pentafluoroethane (HFC-125) + Propane (R-290)
pvap	1566.00	kPa	303.15	Measurement of Vapor-Liquid Equilibria for the Binary Mixture of Pentafluoroethane (HFC-125) + Propane (R-290)
pvap	1202.80	kPa	293.15	Measurement of Vapor-Liquid Equilibria for the Binary Mixture of Pentafluoroethane (HFC-125) + Propane (R-290)
pvap	907.60	kPa	283.15	Measurement of Vapor-Liquid Equilibria for the Binary Mixture of Pentafluoroethane (HFC-125) + Propane (R-290)
pvap	671.40	kPa	273.15	Measurement of Vapor-Liquid Equilibria for the Binary Mixture of Pentafluoroethane (HFC-125) + Propane (R-290)

pvap	573.70	kPa	268.15	Measurement of Vapor-Liquid Equilibria for the Binary Mixture of Pentafluoroethane (HFC-125) + Propane (R-290)
pvap	3171.00	kPa	333.15	(Vapour + liquid) equilibria of the {carbon dioxide + pentafluoroethane (HFC-125)} system and the {carbon dioxide + dodecafluoro-2-methylpentan-3-one (NOVECe1230)} system
pvap	2535.00	kPa	323.15	(Vapour + liquid) equilibria of the {carbon dioxide + pentafluoroethane (HFC-125)} system and the {carbon dioxide + dodecafluoro-2-methylpentan-3-one (NOVECe1230)} system
pvap	2008.00	kPa	313.15	(Vapour + liquid) equilibria of the {carbon dioxide + pentafluoroethane (HFC-125)} system and the {carbon dioxide + dodecafluoro-2-methylpentan-3-one (NOVECe1230)} system
pvap	3170.00	kPa	333.15	(Vapour + liquid) equilibria of the {pentafluoroethane (HFC-125) + dimethyl ether (DME)} system
pvap	2537.00	kPa	323.15	(Vapour + liquid) equilibria of the {pentafluoroethane (HFC-125) + dimethyl ether (DME)} system
pvap	2009.00	kPa	313.15	(Vapour + liquid) equilibria of the {pentafluoroethane (HFC-125) + dimethyl ether (DME)} system

pvap	2531.10	kPa	323.15	Isothermal vapor liquid equilibria for the pentafluoroethane + propane and pentafluoroethane + 1,1,1,2,3,3,3-heptafluoropropane systems
pvap	1773.20	kPa	308.15	Isothermal vapor liquid equilibria for the pentafluoroethane + propane and pentafluoroethane + 1,1,1,2,3,3,3-heptafluoropropane systems
pvap	1205.60	kPa	293.15	Isothermal vapor liquid equilibria for the pentafluoroethane + propane and pentafluoroethane + 1,1,1,2,3,3,3-heptafluoropropane systems
pvap	782.10	kPa	278.15	Isothermal vapor liquid equilibria for the pentafluoroethane + propane and pentafluoroethane + 1,1,1,2,3,3,3-heptafluoropropane systems
pvap	482.40	kPa	263.15	Isothermal vapor liquid equilibria for the pentafluoroethane + propane and pentafluoroethane + 1,1,1,2,3,3,3-heptafluoropropane systems
pvap	1204.70	kPa	293.15	Isothermal vapour + liquid equilibrium measurements and correlation for the pentafluoroethane + cyclopropane and the cyclopropane + 1,1,1,2-tetrafluoroethane binary systems

pvap	672.10	kPa	273.15	Isothermal vapour + liquid equilibrium measurements and correlation for the pentafluoroethane + cyclopropane and the cyclopropane + 1,1,1,2-tetrafluoroethane binary systems
pvap	337.30	kPa	253.15	Isothermal vapour + liquid equilibrium measurements and correlation for the pentafluoroethane + cyclopropane and the cyclopropane + 1,1,1,2-tetrafluoroethane binary systems

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.40927e+01
Coeff. B	-1.86718e+03
Coeff. C	-2.79820e+01
Temperature range (K), min.	163.24
Temperature range (K), max.	339.17

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/T + C \cdot \ln(T) + D \cdot T^2$
Coeff. A	4.99763e+01
Coeff. B	-3.50418e+03
Coeff. C	-5.58324e+00
Coeff. D	8.81229e-06
Temperature range (K), min.	170.15
Temperature range (K), max.	342.00

Datasets

Viscosity, Pa*s

Temperature, K - Liquid	Pressure, kPa - Liquid	Viscosity, Pa*s - Liquid
253.99	1440.00	0.0002707
253.99	1450.00	0.0002710
253.99	1460.00	0.0002710
253.99	1470.00	0.0002711
253.99	1480.00	0.0002707
253.99	3250.00	0.0002794
253.99	3280.00	0.0002789
253.99	5050.00	0.0002876
253.99	5060.00	0.0002874
253.99	5100.00	0.0002875
253.99	5140.00	0.0002875
253.99	7350.00	0.0002984
253.99	7360.00	0.0002984
253.99	7380.00	0.0002982
253.99	1450.00	0.0002710
253.99	1460.00	0.0002710
253.99	3280.00	0.0002794
253.99	3280.00	0.0002790
263.23	1430.00	0.0002381
263.23	1440.00	0.0002373
263.23	1460.00	0.0002382
263.23	1480.00	0.0002377
263.23	3050.00	0.0002452
263.23	3060.00	0.0002453
263.23	3070.00	0.0002456
263.23	5030.00	0.0002531
263.23	5050.00	0.0002529
263.23	5060.00	0.0002535
263.23	5070.00	0.0002538
263.23	5080.00	0.0002538
263.23	5110.00	0.0002534
263.23	7530.00	0.0002643
263.23	7560.00	0.0002645
263.23	7610.00	0.0002645
263.23	7640.00	0.0002646

263.23	9770.00	0.0002743
263.23	9800.00	0.0002740
263.23	9820.00	0.0002745
263.23	1440.00	0.0002375
273.08	1460.00	0.0002076
273.08	1480.00	0.0002075
273.08	1490.00	0.0002074
273.08	1500.00	0.0002074
273.08	2940.00	0.0002147
273.08	2950.00	0.0002145
273.08	2990.00	0.0002145
273.08	5020.00	0.0002234
273.08	5030.00	0.0002229
273.08	5040.00	0.0002224
273.08	7480.00	0.0002324
273.08	7490.00	0.0002327
273.08	7510.00	0.0002324
273.08	7520.00	0.0002326
273.08	7530.00	0.0002324
273.08	9680.00	0.0002416
273.08	9690.00	0.0002419
273.08	9710.00	0.0002416
273.08	1500.00	0.0002073
273.08	5030.00	0.0002233
273.08	5040.00	0.0002224
273.08	7490.00	0.0002324
273.08	9690.00	0.0002421
273.08	5040.00	0.0002226
273.08	7490.00	0.0002324
273.08	7490.00	0.0002327
283.29	1550.00	0.0001781
283.29	1580.00	0.0001789
283.29	1590.00	0.0001788
283.29	1600.00	0.0001785
283.29	1620.00	0.0001783
283.29	3000.00	0.0001852
283.29	3010.00	0.0001850
283.29	3030.00	0.0001852
283.29	3060.00	0.0001850
283.29	5190.00	0.0001957
283.29	5220.00	0.0001954
283.29	5230.00	0.0001953
283.29	5270.00	0.0001956
283.29	7590.00	0.0002059

283.29	7600.00	0.0002064
283.29	10040.00	0.0002155
283.29	10050.00	0.0002155
283.29	10070.00	0.0002155
283.29	10080.00	0.0002157
283.29	3010.00	0.0001850
283.29	3030.00	0.0001852
283.29	5220.00	0.0001960
283.29	7600.00	0.0002057
283.29	10040.00	0.0002159
283.29	5220.00	0.0001953
283.29	7600.00	0.0002055
283.29	5220.00	0.0001955
283.29	7600.00	0.0002059
283.29	7600.00	0.0002056
293.13	2020.00	0.0001577
293.13	2030.00	0.0001581
293.13	2070.00	0.0001583
293.13	2100.00	0.0001584
293.13	2110.00	0.0001583
293.13	2140.00	0.0001583
293.13	5080.00	0.0001720
293.13	5100.00	0.0001716
293.13	5130.00	0.0001719
293.13	7530.00	0.0001818
293.13	9990.00	0.0001918
293.13	10030.00	0.0001915
293.13	10040.00	0.0001918
293.13	10050.00	0.0001914
293.13	5130.00	0.0001715
293.13	7530.00	0.0001813
293.13	10030.00	0.0001915
293.13	10040.00	0.0001917
293.13	7530.00	0.0001813
293.13	10040.00	0.0001916
293.13	7530.00	0.0001811
293.13	10040.00	0.0001914

Reference

<https://www.doi.org/10.1021/je0601356>

Mass density, kg/m³

Temperature, K - Gas	Pressure, kPa - Gas	Mass density, kg/m ³ - Gas
283.15	207.20	10.978
283.15	442.70	24.667
283.15	617.40	35.92
283.15	710.70	42.388
283.15	710.80	42.398
283.15	758.30	45.853
283.15	811.70	49.877
283.15	828.00	51.137
283.15	857.00	53.417
283.15	872.20	54.64
283.15	872.30	54.652
283.15	880.00	55.27
283.15	889.10	56.021
283.15	889.20	56.023
283.15	901.70	57.048
283.15	207.20	10.98
283.15	442.70	24.675
283.15	617.40	35.904
283.15	758.30	45.855
283.15	811.70	49.881
283.15	828.00	51.141
283.15	857.00	53.429
283.15	880.00	55.283
283.15	901.70	57.055
293.15	205.90	10.502
293.15	206.00	10.492
293.15	413.10	21.853
293.15	413.20	21.867
293.15	605.00	33.264
293.15	799.70	45.976
293.15	799.80	45.993
293.15	901.50	53.187
293.15	1000.40	60.669
293.15	1000.50	60.666
293.15	1051.50	64.739
293.15	1101.20	68.839
293.15	1101.30	68.86
293.15	1133.20	71.588
293.15	1149.60	73.019
293.15	1149.70	73.016
293.15	1170.50	74.869
293.15	1170.60	74.882
293.15	1181.80	75.887

293.15	1182.00	75.908
293.15	1192.10	76.823
293.15	1192.20	76.841
293.15	1200.90	77.624
293.15	1201.00	77.644
293.15	605.00	33.278
293.15	901.50	53.196
293.15	1051.50	64.718
293.15	1133.20	71.578
303.15	225.10	11.079
303.15	411.90	20.874
303.15	602.30	31.549
303.15	800.10	43.526
303.15	999.20	56.733
303.15	999.30	56.74
303.15	1202.40	71.762
303.15	1299.20	79.657
303.15	1299.40	79.674
303.15	1406.60	89.099
303.15	1406.70	89.124
303.15	1450.20	93.212
303.15	1481.20	96.221
303.15	1481.30	96.231
303.15	1505.20	98.609
303.15	1520.50	100.175
303.15	1520.60	100.195
303.15	1537.30	101.933
303.15	1537.40	101.917
303.15	1565.10	104.879
303.15	1565.80	104.956
303.15	225.10	11.067
303.15	411.90	20.883
303.15	602.30	31.562
303.15	800.10	43.535
303.15	1202.40	71.771
303.15	1450.20	93.199
303.15	1505.20	98.623
313.15	203.40	9.623
313.15	404.50	19.688
313.15	404.60	19.685
313.15	602.70	30.212
313.15	801.50	41.496
313.15	1002.00	53.76
313.15	1199.30	66.915

313.15	1398.20	81.578
313.15	1398.30	81.585
313.15	1604.40	98.7
313.15	1604.50	98.71
313.15	1705.90	108.152
313.15	1814.10	119.18
313.15	1900.70	128.932
313.15	1951.90	135.193
313.15	1976.70	138.387
313.15	1990.30	140.173
313.15	2001.80	141.759
313.15	2002.00	141.763
313.15	203.40	9.618
313.15	602.70	30.217
313.15	801.50	41.504
313.15	1002.00	53.773
313.15	1199.30	66.926
313.15	1705.90	108.153
313.15	1814.10	119.179
313.15	1900.70	128.938
313.15	1951.90	135.196
313.15	1976.70	138.379
313.15	1990.30	140.201
323.15	196.20	8.951
323.15	495.80	23.505
323.15	798.10	39.455
323.15	999.50	50.95
323.15	999.60	50.954
323.15	1199.00	63.156
323.15	1399.00	76.417
323.15	1599.70	90.933
323.15	1798.90	106.993
323.15	1799.00	106.996
323.15	2000.30	125.421
323.15	2100.40	135.708
323.15	2201.40	147.071
323.15	2201.50	147.082
323.15	2301.30	159.592
323.15	2350.00	166.311
323.15	2350.10	166.298
323.15	2400.20	173.712
323.15	2430.00	178.427
323.15	2430.10	178.468
323.15	2451.80	182.037

323.15	2469.30	185.047
323.15	196.20	8.953
323.15	495.80	23.498
323.15	798.10	39.458
323.15	1199.00	63.162
323.15	1399.00	76.411
323.15	1599.70	90.927
323.15	2000.30	125.435
323.15	2100.40	135.695
323.15	2301.30	159.61
323.15	2400.20	173.74
323.15	2451.80	182.009
323.15	2469.30	185.021

Reference

<https://www.doi.org/10.1021/je700236c>

Mass density, kg/m³

Temperature, K - Fluid (supercritical or subcritical phases)	Pressure, kPa - Fluid (supercritical or subcritical phases)	Mass density, kg/m ³ - Fluid (supercritical or subcritical phases)
258.16	4595.60	1403.78
261.15	6579.80	1403.47
262.14	7284.60	1403.36
267.16	10809.20	1402.84
270.19	13002.80	1402.53
273.15	15075.90	1402.23
275.15	16572.00	1402.04

Reference

<https://www.doi.org/10.1007/s10765-005-8591-6>

Speed of sound, m/s

Temperature, K - Gas	Pressure, kPa - Gas	Speed of sound, m/s - Gas
277.16	20.94	144.941
277.16	40.92	144.494
277.16	60.65	144.049
277.16	80.97	143.587
277.16	101.09	143.127

277.16	121.01	142.666
277.16	141.08	142.198
277.16	161.07	141.727
277.16	180.84	141.258
277.16	198.80	140.826
303.14	10.51	151.496
303.14	20.76	151.314
303.14	40.75	150.968
303.14	60.79	150.621
303.14	80.27	150.282
303.14	100.78	149.925
303.14	120.91	149.571
303.14	140.84	149.22
303.14	160.84	148.865
303.14	180.99	148.505
303.14	200.32	148.157
303.14	300.92	146.318
303.14	398.68	144.475
303.14	465.23	143.19
313.15	10.50	153.843
313.15	20.68	153.683
313.15	40.59	153.372
313.15	60.28	153.063
313.15	80.59	152.743
313.15	100.57	152.427
313.15	120.77	152.106
313.15	140.78	151.786
313.15	160.71	151.466
313.15	180.78	151.142
313.15	200.47	150.822
313.15	300.67	149.175
313.15	400.70	147.489
313.15	480.34	146.116
323.14	10.70	156.16
323.14	20.42	156.018
323.14	40.64	155.73
323.14	60.80	155.442
323.14	80.84	155.155
323.14	100.74	154.869
323.14	120.86	154.579
323.14	140.92	154.288
323.14	160.95	153.997
323.14	180.33	153.713
323.14	200.71	153.412

323.14	300.75	151.926
323.14	400.83	150.409
323.14	501.38	148.851
343.13	40.76	160.332
343.13	60.62	160.094
343.13	80.21	159.86
343.13	100.97	159.611
343.13	120.73	159.373
343.13	140.89	159.13
343.13	160.51	158.892
343.13	180.90	158.645
343.13	197.50	158.442
343.13	300.29	157.186
343.13	400.48	155.939
343.13	500.26	154.681
343.13	600.30	153.405
343.14	20.77	160.578
343.14	40.77	160.336
343.14	59.94	160.107
343.14	80.48	159.86
343.14	100.55	159.619
343.14	120.90	159.375
343.14	140.63	159.137
343.14	160.64	158.896
343.14	180.84	158.651
343.14	200.46	158.413
343.14	300.55	157.187
343.14	399.77	155.957
343.14	501.32	154.676

Reference

<https://www.doi.org/10.1021/je034213q>

Thermal conductivity, W/m/K

Temperature, K - Gas	Pressure, kPa - Gas	Thermal conductivity, W/m/K - Gas
221.81	61.00	0.0085
221.81	68.00	0.0085
221.83	60.00	0.0086
221.87	41.00	0.0086
221.88	61.00	0.0085
222.02	31.00	0.0087

222.13	62.00	0.0086
222.15	60.00	0.0086
222.20	41.00	0.0086
222.22	60.00	0.0085
222.37	33.00	0.0087
222.48	63.00	0.0086
222.50	63.00	0.0086
222.56	41.00	0.0086
222.57	60.00	0.0085
222.74	34.00	0.0087
222.85	64.00	0.0086
222.87	64.00	0.0086
222.95	41.00	0.0086
222.96	59.00	0.0086
223.12	36.00	0.0087
231.59	111.00	0.0092
231.64	81.00	0.0092
231.71	57.00	0.0092
231.78	40.00	0.0093
231.89	112.00	0.0092
231.95	83.00	0.0092
232.03	58.00	0.0092
232.12	40.00	0.0093
232.21	113.00	0.0092
232.28	84.00	0.0092
232.38	59.00	0.0092
232.48	40.00	0.0093
232.57	114.00	0.0092
232.64	86.00	0.0092
232.75	60.00	0.0093
232.86	40.00	0.0093
241.92	160.00	0.0099
241.94	69.00	0.0100
241.94	135.00	0.0099
241.95	92.00	0.0099
241.95	41.00	0.0099
241.96	123.00	0.0099
242.23	163.00	0.0099
242.25	69.00	0.0100
242.26	136.00	0.0099
242.26	92.00	0.0100
242.27	123.00	0.0099
242.28	41.00	0.0099
242.55	165.00	0.0099

242.59	69.00	0.0100
242.60	92.00	0.0100
242.60	137.00	0.0099
242.61	123.00	0.0099
242.62	41.00	0.0099
242.90	167.00	0.0100
242.95	69.00	0.0100
242.96	139.00	0.0100
242.96	93.00	0.0100
242.97	123.00	0.0099
242.98	41.00	0.0099
251.52	250.00	0.0106
251.54	224.00	0.0106
251.57	181.00	0.0106
251.59	185.00	0.0106
251.59	113.00	0.0106
251.59	142.00	0.0106
251.70	134.00	0.0106
251.76	91.00	0.0106
251.80	253.00	0.0106
251.84	224.00	0.0106
251.88	182.00	0.0106
251.88	142.00	0.0106
251.88	111.00	0.0106
251.89	186.00	0.0106
251.91	42.00	0.0107
252.01	136.00	0.0106
252.10	92.00	0.0106
252.11	255.00	0.0106
252.15	225.00	0.0105
252.20	107.00	0.0106
252.21	187.00	0.0106
252.22	142.00	0.0106
252.23	184.00	0.0106
252.26	43.00	0.0107
252.33	137.00	0.0106
252.43	258.00	0.0106
252.44	93.00	0.0106
252.49	225.00	0.0106
252.55	99.00	0.0107
252.55	141.00	0.0106
252.55	187.00	0.0106
252.58	186.00	0.0106
252.64	43.00	0.0107

252.69	139.00	0.0106
252.81	94.00	0.0107
253.03	43.00	0.0107
261.64	385.00	0.0114
261.92	389.00	0.0114
261.92	409.00	0.0114
261.95	361.00	0.0114
262.01	310.00	0.0114
262.05	275.00	0.0114
262.11	220.00	0.0114
262.18	173.00	0.0114
262.20	391.00	0.0114
262.22	409.00	0.0115
262.25	126.00	0.0114
262.25	361.00	0.0114
262.30	311.00	0.0114
262.34	83.00	0.0114
262.35	275.00	0.0114
262.43	220.00	0.0113
262.50	174.00	0.0113
262.51	395.00	0.0114
262.52	409.00	0.0115
262.56	361.00	0.0114
262.58	127.00	0.0114
262.63	311.00	0.0114
262.68	275.00	0.0114
262.69	83.00	0.0114
262.76	221.00	0.0114
262.81	409.00	0.0115
262.85	175.00	0.0114
262.89	361.00	0.0115
262.93	128.00	0.0114
262.96	312.00	0.0114
263.02	276.00	0.0114
263.06	83.00	0.0114
263.11	222.00	0.0114
263.21	176.00	0.0114
263.31	129.00	0.0114
263.47	83.00	0.0115
271.69	577.00	0.0122
271.73	546.00	0.0123
271.84	463.00	0.0122
271.87	399.00	0.0122
271.93	331.00	0.0121

271.97	577.00	0.0123
271.98	249.00	0.0121
272.01	549.00	0.0123
272.03	193.00	0.0121
272.09	465.00	0.0122
272.13	136.00	0.0121
272.16	400.00	0.0122
272.22	332.00	0.0121
272.23	77.00	0.0122
272.28	251.00	0.0121
272.29	577.00	0.0123
272.30	551.00	0.0123
272.35	194.00	0.0121
272.38	468.00	0.0122
272.45	136.00	0.0121
272.47	401.00	0.0122
272.52	332.00	0.0121
272.58	77.00	0.0122
272.59	577.00	0.0123
272.61	553.00	0.0123
272.61	253.00	0.0121
272.69	195.00	0.0121
272.70	470.00	0.0123
272.79	136.00	0.0121
272.79	402.00	0.0122
272.86	333.00	0.0121
272.96	77.00	0.0122
272.96	254.00	0.0121
273.05	195.00	0.0121
273.17	136.00	0.0121
273.34	77.00	0.0122
281.60	787.00	0.0133
281.65	726.00	0.0132
281.66	654.00	0.0131
281.69	585.00	0.0131
281.72	518.00	0.0130
281.76	440.00	0.0129
281.81	364.00	0.0129
281.86	787.00	0.0133
281.86	291.00	0.0129
281.90	726.00	0.0132
281.92	653.00	0.0131
281.93	202.00	0.0129
281.96	585.00	0.0131

281.99	517.00	0.0130
282.04	144.00	0.0129
282.04	440.00	0.0129
282.10	364.00	0.0129
282.12	786.00	0.0133
282.15	82.00	0.0130
282.17	291.00	0.0130
282.18	726.00	0.0132
282.20	652.00	0.0131
282.24	584.00	0.0130
282.25	202.00	0.0129
282.29	517.00	0.0130
282.35	440.00	0.0129
282.36	145.00	0.0129
282.41	365.00	0.0129
282.41	786.00	0.0133
282.46	725.00	0.0132
282.48	82.00	0.0130
282.48	291.00	0.0129
282.51	651.00	0.0131
282.54	584.00	0.0131
282.58	203.00	0.0129
282.59	517.00	0.0130
282.65	440.00	0.0130
282.70	146.00	0.0130
282.72	365.00	0.0130
282.82	290.00	0.0129
282.85	82.00	0.0130
282.92	204.00	0.0130
283.06	147.00	0.0130
283.22	83.00	0.0131
291.32	1058.00	0.0144
291.38	962.00	0.0143
291.43	877.00	0.0141
291.48	798.00	0.0142
291.51	715.00	0.0139
291.55	1058.00	0.0144
291.57	617.00	0.0138
291.60	542.00	0.0138
291.62	962.00	0.0142
291.64	450.00	0.0137
291.67	877.00	0.0141
291.69	359.00	0.0137
291.71	798.00	0.0140

291.77	277.00	0.0137
291.77	715.00	0.0139
291.79	1058.00	0.0144
291.83	617.00	0.0138
291.86	542.00	0.0138
291.86	962.00	0.0143
291.91	177.00	0.0137
291.91	450.00	0.0137
291.93	877.00	0.0141
291.98	798.00	0.0140
291.99	359.00	0.0137
292.05	87.00	0.0138
292.05	715.00	0.0139
292.06	277.00	0.0137
292.06	1058.00	0.0143
292.11	617.00	0.0138
292.13	962.00	0.0142
292.15	542.00	0.0138
292.20	877.00	0.0141
292.21	177.00	0.0137
292.22	450.00	0.0137
292.26	798.00	0.0140
292.29	359.00	0.0137
292.33	715.00	0.0139
292.38	86.00	0.0138
292.38	277.00	0.0137
292.41	617.00	0.0138
292.46	542.00	0.0138
292.51	450.00	0.0138
292.54	177.00	0.0138
292.62	359.00	0.0137
292.70	277.00	0.0138
292.74	87.00	0.0138
292.90	177.00	0.0138
293.10	86.00	0.0139
301.35	1381.00	0.0157
301.37	1301.00	0.0155
301.41	1171.00	0.0152
301.49	1063.00	0.0150
301.53	952.00	0.0149
301.56	1381.00	0.0157
301.56	857.00	0.0148
301.60	1295.00	0.0155
301.62	762.00	0.0147

301.64	1171.00	0.0152
301.66	664.00	0.0147
301.71	556.00	0.0146
301.72	1063.00	0.0150
301.78	428.00	0.0146
301.78	952.00	0.0149
301.78	1381.00	0.0157
301.81	857.00	0.0148
301.83	1288.00	0.0155
301.83	317.00	0.0146
301.87	762.00	0.0147
301.87	1171.00	0.0152
301.91	664.00	0.0147
301.93	215.00	0.0146
301.97	1063.00	0.0150
301.97	556.00	0.0146
302.02	1381.00	0.0156
302.03	952.00	0.0150
302.04	428.00	0.0146
302.07	857.00	0.0148
302.09	1280.00	0.0155
302.10	95.00	0.0147
302.12	317.00	0.0146
302.13	762.00	0.0147
302.13	1171.00	0.0152
302.19	664.00	0.0146
302.23	215.00	0.0146
302.24	1063.00	0.0150
302.25	556.00	0.0146
302.29	952.00	0.0149
302.34	428.00	0.0146
302.35	857.00	0.0148
302.41	95.00	0.0147
302.41	762.00	0.0148
302.43	317.00	0.0146
302.49	664.00	0.0147
302.53	215.00	0.0146
302.56	556.00	0.0146
302.65	428.00	0.0146
302.75	317.00	0.0146
302.77	95.00	0.0147
302.88	215.00	0.0146
303.13	95.00	0.0148

Molar heat capacity at constant pressure, J/K/mol

Temperature, K - Gas	Pressure, kPa - Gas	Molar heat capacity at constant pressure, J/K/mol - Gas
343.15	500.00	103.22
343.15	650.00	105.62
343.15	1000.00	108.26
303.15	1500.00	129.62
307.15	1500.00	123.62
311.15	1500.00	121.10
313.15	1500.00	121.58
343.15	1500.00	115.70
314.15	2000.00	147.63
315.15	2000.00	145.71
316.15	2000.00	145.35
317.15	2000.00	144.27
318.15	2000.00	143.43
319.15	2000.00	140.18
320.15	2000.00	138.38
321.15	2000.00	139.70
322.15	2000.00	135.62
343.15	2000.00	123.14
319.15	2200.00	158.55
320.15	2200.00	159.03
321.15	2200.00	156.99
323.15	2200.00	153.75
343.15	2200.00	128.30
323.15	2400.00	173.91
324.15	2400.00	168.03
325.15	2400.00	161.31
326.15	2400.00	159.03
327.15	2400.00	157.47
343.15	2400.00	134.42

Reference

<https://www.doi.org/10.1021/acs.jced.8b00310>

Temperature, K

Mass density, kg/m³

Molar heat capacity at constant volume, J/K/mol

306.00	1202.8	102.7743
307.00	1202.7	103.9865
308.00	1202.5	103.9625
309.00	1202.4	102.4862
310.00	1202.3	101.4781
311.00	1202.1	102.6423
312.00	1202.0	103.2064
313.00	1201.9	102.6423
314.00	1201.7	103.2424
315.00	1201.6	102.9183
316.00	1201.5	103.0863
317.00	1201.4	102.7263
318.00	1201.2	102.1862
319.00	1201.1	102.7383
320.00	1201.0	102.9183
321.00	1200.8	102.7503
321.00	1200.8	102.7023
322.00	1079.2	106.1829
322.00	1200.7	102.4742
322.00	1079.2	102.4742
322.00	1200.7	101.8861
323.00	1079.1	105.9429
323.00	1200.6	102.8943
323.00	1079.1	104.0225
323.00	1200.6	102.1022
324.00	1079.0	105.7148
324.00	1200.5	102.7743
324.00	1079.0	105.3067
324.00	1200.5	102.4502
325.00	1078.9	104.7066
325.00	1200.3	102.8343
325.00	1078.9	104.0945
325.00	1200.3	102.3062
326.00	1078.8	103.2544
326.00	1200.2	102.6303
326.00	1078.8	103.3384
326.00	1200.2	102.1022
327.00	1078.7	104.3106
327.00	1200.1	102.6543
327.00	1078.7	104.3106
327.00	1200.1	102.3542
328.00	1078.6	105.0307
328.00	1199.9	102.8943
328.00	1200.0	103.6384

328.00	1078.6	104.8507
329.00	1078.5	104.7906
329.00	1199.8	102.8103
329.00	1078.5	104.4066
329.00	1199.8	102.6903
330.00	1078.4	105.0067
330.00	1199.7	103.0863
330.00	1078.4	104.0705
331.00	1078.3	104.3586
331.00	1199.6	102.6423
331.00	1078.3	104.2025
332.00	976.3	110.5637
332.00	1078.2	104.9827
332.00	1199.4	103.4464
332.00	976.3	112.172
332.00	1078.2	105.4748
333.00	976.2	107.8752
333.00	1078.1	105.7748
333.00	1199.3	103.8305
333.00	976.2	109.1234
333.00	1078.1	104.8747
334.00	976.2	105.2467
334.00	1078.0	104.9827
334.00	1199.2	103.3864
334.00	976.2	107.1191
334.00	1078.0	103.5304
335.00	976.1	106.1109
335.00	1077.9	104.4306
335.00	1199.1	102.8463
335.00	976.1	106.987
335.00	1077.9	103.5664
336.00	976.0	107.3231
336.00	1077.8	104.7426
336.00	1198.9	102.2582
336.00	976.0	107.2271
336.00	1077.8	104.0465
337.00	975.9	107.5991
337.00	1077.7	105.5708
337.00	1198.8	103.7105
337.00	975.9	108.4273
337.00	1077.7	105.6908
338.00	975.9	107.0831
338.00	1077.6	104.1545
338.00	1198.7	104.2265

338.00	975.9	107.5871
338.00	1077.6	105.0907
339.00	883.4	114.1883
339.00	975.8	106.2069
339.00	1077.5	103.9745
339.00	1198.5	103.9985
339.00	975.8	106.603
339.00	1077.5	103.5904
340.00	883.3	112.9041
340.00	975.7	106.543
340.00	1077.4	105.3547
340.00	975.7	107.4191
340.00	1077.4	104.4906
341.00	883.3	112.0999
341.00	975.6	107.8752
341.00	1077.3	105.6188
341.00	975.6	107.6111
341.00	1077.3	105.1627
342.00	883.2	111.0318
342.00	975.6	106.999
342.00	1077.2	104.9227
342.00	1077.2	104.7906
343.00	502.9	134.808
343.00	883.1	110.4196
343.00	975.5	106.855
343.00	1077.1	104.1665
343.00	1077.1	104.8387
344.00	502.9	132.1555
344.00	585.8	125.9744
344.00	883.1	111.2958
344.00	975.4	106.4109
344.00	1077.0	104.7546
344.00	1077.0	104.5986
345.00	502.9	126.9826
345.00	585.7	123.9461
345.00	585.8	131.3514
345.00	688.7	126.8266
345.00	883.0	111.0198
345.00	975.3	107.2631
345.00	1076.9	105.1147
345.00	1076.9	104.7186
346.00	403.2	120.0814
346.00	502.9	120.1534
346.00	585.7	120.3214

346.00	585.8	127.6547
346.00	688.7	123.2139
346.00	774.1	115.1965
346.00	883.0	110.8877
346.00	975.3	107.4671
346.00	1076.8	105.5348
346.00	975.3	107.6231
346.00	1076.8	105.0787
347.00	403.2	117.753
347.00	503.0	115.9286
347.00	585.7	117.7169
347.00	585.8	123.886
347.00	688.7	119.2292
347.00	774.1	114.8964
347.00	882.9	110.1916
347.00	975.2	105.5228
347.00	1076.7	105.0427
347.00	975.2	107.2751
347.00	1076.7	104.5386
348.00	403.3	116.5887
348.00	503.0	118.4851
348.00	585.7	124.8462
348.00	688.7	117.7049
348.00	774.0	114.6204
348.00	882.8	109.7475
348.00	975.1	106.2069
348.00	1076.6	104.5866
348.00	585.7	118.077
348.00	975.1	107.4071
348.00	1076.6	104.7426
349.00	403.3	115.6886
349.00	503.0	119.7573
349.00	585.7	123.442
349.00	688.6	119.0252
349.00	774.0	115.4005
349.00	882.8	110.5877
349.00	975.0	107.4071
349.00	1076.6	105.3788
349.00	585.7	117.1408
349.00	975.0	108.4873
349.00	1076.6	105.9549
350.00	403.4	113.6722
350.00	503.0	116.8168
350.00	585.7	121.8697

350.00	688.6	121.8217
350.00	774.0	115.8686
350.00	882.7	111.1998
350.00	975.0	106.807
350.00	1076.5	105.5108
350.00	585.7	115.2565
350.00	975.0	108.2233
350.00	1076.5	105.7508
351.00	403.4	114.0323
351.00	503.0	115.4245
351.00	585.7	123.2259
351.00	688.6	119.9133
351.00	773.9	114.0563
351.00	882.7	110.2516
351.00	974.9	106.0149
351.00	1076.4	105.2587
351.00	585.7	113.9963
351.00	974.9	107.3591
351.00	1076.4	105.5708
352.00	403.5	110.2276
352.00	503.0	114.0803
352.00	585.7	123.574
352.00	688.6	117.0208
352.00	773.9	113.1561
352.00	882.6	108.9554
352.00	974.8	106.963
352.00	1076.3	105.7508
352.00	585.7	113.0241
352.00	974.8	107.8632
352.00	1076.3	105.2347
353.00	403.5	109.2914
353.00	503.0	114.3203
353.00	585.7	120.9935
353.00	688.5	116.8048
353.00	773.8	113.5642
353.00	882.5	110.8997
353.00	974.7	107.3111
353.00	1076.2	106.2069
353.00	585.7	113.0721
353.00	974.7	108.3313
353.00	1076.2	105.6668
354.00	403.6	113.2161
354.00	503.0	115.3645
354.00	585.7	119.2052

354.00	688.5	117.1768
354.00	773.8	113.6962
354.00	882.5	112.316
354.00	974.6	107.0711
354.00	1076.1	105.4988
354.00	585.7	111.2358
354.00	974.6	107.8392
354.00	1076.1	106.639
355.00	403.6	113.0601
355.00	503.0	114.2603
355.00	585.7	121.1736
355.00	688.5	116.5167
355.00	773.7	113.1441
355.00	882.4	110.0356
355.00	974.6	106.627
355.00	1076.0	104.4666
355.00	585.7	110.2516
355.00	974.6	107.2871
355.00	1076.0	105.3067
356.00	403.6	111.1278
356.00	503.0	113.9963
356.00	585.7	121.3896
356.00	688.4	115.4365
356.00	773.7	112.556
356.00	882.4	109.8315
356.00	974.5	106.759
356.00	1075.9	105.5948
356.00	585.7	110.5157
356.00	974.5	106.975
356.00	1075.9	105.0427
357.00	403.6	111.1398
357.00	503.0	114.2963
357.00	585.6	111.9559
357.00	585.7	119.5413
357.00	688.4	115.7246
357.00	773.7	114.0803
357.00	882.3	111.1278
357.00	974.4	107.5151
357.00	1075.8	106.519
357.00	974.4	108.2713
357.00	1075.8	106.0509
358.00	403.6	111.5599
358.00	503.0	112.472
358.00	585.6	118.7251

358.00	688.4	115.4245
358.00	773.6	113.9123
358.00	882.2	110.6237
358.00	974.3	107.3711
358.00	1075.7	105.7148
358.00	585.6	110.5157
358.00	974.3	108.9314
358.00	1075.7	106.795
359.00	403.6	112.172
359.00	503.0	112.7121
359.00	585.6	120.7295
359.00	688.3	114.5964
359.00	773.6	112.664
359.00	882.2	109.4115
359.00	974.3	106.843
359.00	1075.6	105.1147
359.00	585.6	110.0116
359.00	974.3	107.6832
359.00	1075.6	106.0389
360.00	403.6	111.0558
360.00	503.0	113.8523
360.00	585.6	119.6373
360.00	688.3	115.4365
360.00	773.5	113.0121
360.00	882.1	109.0994
360.00	974.2	106.663
360.00	1075.5	106.1949
360.00	585.6	111.4638
360.00	974.2	107.7072
360.00	1075.5	105.8708
361.00	403.6	110.4196
361.00	503.0	112.256
361.00	585.6	116.4087
361.00	688.3	115.6046
361.00	773.5	113.8643
361.00	882.1	110.8877
361.00	974.1	107.1071
361.00	1075.4	106.591
361.00	585.6	111.5719
361.00	974.1	108.3673
362.00	403.6	109.7835
362.00	503.0	111.4038
362.00	585.6	117.981
362.00	688.2	115.9526

362.00	773.4	112.7121
362.00	882.0	110.8037
362.00	974.0	107.2991
362.00	1075.3	106.0869
362.00	585.6	110.7317
362.00	974.0	108.2233
363.00	403.6	109.9396
363.00	503.0	114.1643
363.00	585.5	120.7415
363.00	688.2	116.4447
363.00	773.4	110.5277
363.00	881.9	110.6117
363.00	974.0	106.4109
363.00	1075.2	106.3749
363.00	585.5	110.3596
363.00	974.0	108.0192
364.00	403.6	111.1038
364.00	503.0	113.4202
364.00	585.5	119.3972
364.00	688.2	114.6924
364.00	773.3	110.7077
364.00	881.9	110.7917
364.00	973.9	106.699
364.00	1075.1	106.3149
364.00	585.5	109.8796
364.00	973.9	108.1032
365.00	403.6	108.6673
365.00	503.0	111.4878
365.00	585.5	117.957
365.00	688.1	115.2565
365.00	773.3	119.0372
365.00	881.8	110.3236
365.00	973.8	106.4109
365.00	1075.0	105.7508
365.00	585.5	110.0236
365.00	973.8	108.2953
366.00	403.6	108.1632
366.00	503.0	114.4524
366.00	585.5	119.6973
366.00	688.1	116.4807
366.00	881.7	110.4316
366.00	973.7	107.6231
366.00	1074.9	106.2189
366.00	585.5	112.436

366.00	973.7	109.2314
367.00	403.6	110.8637
367.00	502.9	113.3122
367.00	585.4	117.6209
367.00	688.1	115.0525
367.00	881.7	109.6995
367.00	973.6	107.5751
367.00	1074.8	106.4109
367.00	585.4	110.2756
367.00	973.6	108.9554
368.00	403.5	111.0918
368.00	502.9	112.136
368.00	585.4	115.5326
368.00	688.0	113.0121
368.00	773.1	111.1638
368.00	881.6	109.6155
368.00	973.6	106.747
368.00	1074.7	106.1709
368.00	585.4	108.8954
368.00	973.6	108.5473
369.00	403.5	111.6679
369.00	502.9	113.4562
369.00	585.4	118.029
369.00	688.0	114.3684
369.00	773.1	112.652
369.00	881.6	110.9357
369.00	973.5	108.2833
369.00	1074.6	106.1829
369.00	585.4	110.3116
369.00	973.5	109.6155
370.00	403.5	111.2238
370.00	502.9	114.8484
370.00	585.4	118.041
370.00	687.9	116.0967
370.00	773.0	113.0001
370.00	881.5	111.1278
370.00	973.4	107.5391
370.00	1074.5	106.555
370.00	585.4	108.8234
370.00	973.4	109.8195
371.00	403.5	112.0879
371.00	502.9	116.6248
371.00	585.3	116.0727
371.00	687.9	113.6722

371.00	773.0	111.6199
371.00	881.4	110.6957
371.00	973.3	107.4431
371.00	1074.4	107.0711
371.00	585.3	110.2636
371.00	973.3	109.1714
372.00	403.5	114.0443
372.00	502.8	115.2445
372.00	585.3	115.8446
372.00	687.9	112.8441
372.00	772.9	111.5358
372.00	881.4	110.2996
372.00	973.3	107.1671
372.00	1074.3	106.2189
372.00	585.3	110.7077
372.00	973.3	108.0432
373.00	403.5	113.1681
373.00	502.8	117.0088
373.00	585.3	117.2009
373.00	687.8	113.5642
373.00	772.9	111.7999
373.00	881.3	111.1878
373.00	973.2	107.6111
373.00	585.3	110.9117
373.00	973.2	108.7754
374.00	403.4	114.4524
374.00	502.8	119.1332
374.00	585.3	117.5009
374.00	687.8	114.1643
374.00	772.9	112.7121
374.00	881.2	112.0039
374.00	973.1	108.9794
374.00	585.3	112.676
374.00	973.1	110.0716
375.00	403.4	112.9521
375.00	502.8	117.921
375.00	585.2	116.6368
375.00	687.8	113.3962
375.00	772.8	112.328
375.00	881.2	110.9958
375.00	973.0	108.2473
375.00	585.2	110.7317
375.00	973.0	109.8075
376.00	403.4	116.0847

376.00	502.8	116.3727
376.00	585.2	116.5527
376.00	687.7	113.5642
376.00	772.8	112.556
376.00	881.1	110.1196
376.00	973.0	107.5511
376.00	585.2	110.5157
376.00	973.0	109.0034
377.00	403.4	115.4845
377.00	502.7	117.2849
377.00	585.2	116.3367
377.00	687.7	114.4524
377.00	772.7	113.0601
377.00	881.1	110.8637
377.00	972.9	108.4153
377.00	585.2	111.6199
377.00	972.9	108.9434
378.00	403.4	113.2762
378.00	502.7	118.293
378.00	585.1	116.8168
378.00	687.6	114.8364
378.00	772.7	112.508
378.00	881.0	111.4278
378.00	972.8	108.1392
378.00	585.1	112.8681
378.00	972.8	110.2156
379.00	403.3	117.969
379.00	502.7	115.2085
379.00	585.1	116.1687
379.00	687.6	115.8206
379.00	772.6	113.5522
379.00	880.9	111.0918
379.00	972.7	107.6472
379.00	585.1	112.304
379.00	972.7	109.2674
380.00	403.3	116.0246
380.00	502.7	112.64
380.00	585.1	111.2718
380.00	687.6	113.0601
380.00	772.6	113.3122
380.00	880.9	111.1758
380.00	972.6	107.7072
380.00	972.6	108.8114
381.00	403.3	114.7044

381.00	502.6	115.0645
381.00	585.0	114.3924
381.00	687.5	113.1441
381.00	772.5	113.0721
381.00	880.8	112.1119
381.00	972.6	113.2882
381.00	972.6	109.6995
382.00	403.3	116.1447
382.00	502.6	117.3089
382.00	585.0	117.0448
382.00	687.5	116.3847
382.00	772.5	113.5882
382.00	880.7	113.1441
382.00	972.5	113.5522
382.00	972.5	110.2276
383.00	403.3	116.8288
383.00	502.6	115.9406
383.00	585.0	116.4447
383.00	687.4	115.7966
383.00	772.4	112.316
383.00	880.7	112.412
383.00	972.4	107.8752
383.00	972.4	110.3596
384.00	403.3	115.5326
384.00	502.6	114.7524
384.00	585.0	115.2805
384.00	687.4	113.9723
384.00	772.4	111.6679
384.00	880.6	112.256
384.00	972.3	108.7754
384.00	972.3	109.5675
385.00	403.2	109.6995
385.00	502.5	112.544
385.00	584.9	115.8206
385.00	687.4	113.7202
385.00	772.3	112.592
385.00	880.6	111.7879
385.00	972.3	110.0116
385.00	972.3	109.2674
386.00	403.2	109.6515
386.00	502.5	114.0683
386.00	584.9	117.4769
386.00	687.3	115.0405
386.00	772.3	114.0803

386.00	880.5	113.1441
386.00	972.2	111.0438
386.00	972.2	111.4278
387.00	403.2	111.9799
387.00	502.5	114.1043
387.00	584.9	115.4365
387.00	687.3	115.2205
387.00	772.2	113.7682
387.00	880.4	113.0361
387.00	972.1	109.6755
387.00	972.1	111.2718
388.00	403.2	113.4562
388.00	502.5	111.1998
388.00	584.8	114.8244
388.00	687.2	114.3203
388.00	772.2	113.3602
388.00	880.4	110.8277
388.00	972.0	109.0154
388.00	972.0	109.9036
389.00	403.2	112.172
389.00	502.4	110.5157
389.00	584.8	116.3607
389.00	687.2	114.2843
389.00	772.1	114.2243
389.00	880.3	112.0759
389.00	972.0	110.0836
389.00	972.0	110.7077
390.00	403.1	112.232
390.00	502.4	112.472
390.00	584.8	115.0285
390.00	687.2	115.4125
390.00	772.1	115.4605
390.00	880.2	113.8523
390.00	971.9	113.1441
390.00	971.9	111.0438
391.00	403.1	115.1245
391.00	502.4	111.2118
391.00	584.7	113.9483
391.00	687.1	114.6924
391.00	772.0	114.4044
391.00	880.2	113.1321
391.00	971.8	113.7322
391.00	971.8	111.1158
392.00	403.1	113.9363

392.00	502.4	111.3198
392.00	584.7	113.4442
392.00	687.1	113.1681
392.00	772.0	112.448
392.00	880.1	111.3918
392.00	971.7	108.9914
392.00	971.7	110.5517
393.00	403.1	113.8403
393.00	502.3	114.9325
393.00	584.7	112.256
393.00	687.0	114.9805
393.00	771.9	113.7682
393.00	880.0	112.8201
393.00	971.6	109.6035
393.00	971.6	110.8397
394.00	403.1	113.1921
394.00	502.3	113.5282
394.00	584.6	113.5642
394.00	687.0	116.4807
394.00	771.9	114.2843
394.00	880.0	113.3122
394.00	971.6	113.4562
394.00	971.6	112.412
395.00	403.0	112.664
395.00	502.3	112.9521
395.00	584.6	114.1283
395.00	687.0	114.6324
395.00	771.8	113.3722
395.00	879.9	112.1119
395.00	971.5	112.7601
395.00	971.5	111.5959
396.00	403.0	114.1883
396.00	502.3	115.6046
396.00	584.6	113.5282
396.00	686.9	113.1681
396.00	771.8	113.3482
396.00	879.9	112.9281
396.00	971.4	112.7721
396.00	971.4	110.2036
397.00	403.0	115.1125
397.00	502.2	113.3722
397.00	584.5	112.424
397.00	686.9	113.7202
397.00	771.7	113.2281

397.00	879.8	113.9723
397.00	971.3	112.64
397.00	971.3	111.5358
398.00	403.0	115.9406
398.00	502.2	111.9079
398.00	584.5	113.6602
398.00	686.8	116.2407
398.00	771.7	114.5244
398.00	879.7	113.6002
398.00	971.3	113.4562
398.00	971.3	112.9161
399.00	502.2	114.4284
399.00	584.5	115.4365
399.00	686.8	115.4966
399.00	771.6	114.8484
399.00	879.7	112.0519
399.00	971.2	112.0759

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Legend

cp_g:	Ideal gas heat capacity
cp_l:	Liquid phase heat capacity
d_{visc}:	Dynamic viscosity
g_f:	Standard Gibbs free energy of formation
h_f:	Enthalpy of formation at standard conditions
h_{fus}:	Enthalpy of fusion at standard conditions
h_{fust}:	Enthalpy of fusion at a given temperature
h_{vap}:	Enthalpy of vaporization at standard conditions
h_{vapt}:	Enthalpy of vaporization at a given temperature
log₁₀w_s:	Log ₁₀ of Water solubility in mol/l
log_p:	Octanol/Water partition coefficient
mc_{vol}:	McGowan's characteristic volume
p_c:	Critical Pressure
p_{vap}:	Vapor pressure
ρ_{oc}:	Critical density
ρ_{og}:	Gas Density
ρ_{ol}:	Liquid Density
speed_s_l:	Speed of sound in fluid
t_b:	Normal Boiling Point Temperature
t_c:	Critical Temperature
t_{condg}:	Gas thermal conductivity
t_f:	Normal melting (fusion) point
v_c:	Critical Volume

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