

Squalane

Other names:	2,6,10,15,19,23-Hexamethyltetracosane Cosbiol Dodecahydrosqualene Hexamethyltetracosane NSC 6851 Perhydrosqualene Robane Spinacane Squalan Squalane N Tetracosane, 2,6,10,15,19,23-hexamethyl- Vitabiosol
Inchi:	InChI=1S/C30H62/c1-25(2)15-11-19-29(7)23-13-21-27(5)17-9-10-18-28(6)22-14-24-30(8)
InchiKey:	PRAKJMSDJKAYCZ-UHFFFAOYSA-N
Formula:	C30H62
SMILES:	CC(C)CCCC(C)CCCC(C)CCCC(C)CCCC(C)CCCC(C)C
Mol. weight [g/mol]:	422.81
CAS:	111-01-3

Physical Properties

Property code	Value	Unit	Source
chl	-19801.30 ± 4.90	kJ/mol	NIST Webbook
chl	-19800.60 ± 1.90	kJ/mol	NIST Webbook
gf	187.08	kJ/mol	Joback Method
hf	-694.21	kJ/mol	Joback Method
hfl	-864.70 ± 6.40	kJ/mol	NIST Webbook
hfl	-865.40 ± 5.90	kJ/mol	NIST Webbook
hfus	52.32	kJ/mol	Joback Method
hvap	80.05	kJ/mol	Joback Method
log10ws	-10.93		Crippen Method
logp	11.084		Crippen Method
mcvol	433.560	ml/mol	McGowan Method
pc	700.00	kPa	Vapor liquid critical properties of squalane measured by the pulse-heating technique
rinpol	2632.00		NIST Webbook
rinpol	2660.00		NIST Webbook

rinpol	2668.00		NIST Webbook
rinpol	2665.00		NIST Webbook
rinpol	2666.00		NIST Webbook
rinpol	2666.00		NIST Webbook
rinpol	2667.00		NIST Webbook
rinpol	2665.00		NIST Webbook
rinpol	2666.00		NIST Webbook
rinpol	2666.00		NIST Webbook
rinpol	2666.00		NIST Webbook
rinpol	2657.00		NIST Webbook
rinpol	2657.00		NIST Webbook
rinpol	2658.10		NIST Webbook
rinpol	2658.50		NIST Webbook
rinpol	2660.00		NIST Webbook
rinpol	2664.40		NIST Webbook
rinpol	2656.10		NIST Webbook
rinpol	2663.00		NIST Webbook
rinpol	2657.00		NIST Webbook
rinpol	2668.00		NIST Webbook
rinpol	2630.00		NIST Webbook
rinpol	2663.00		NIST Webbook
rinpol	2630.00		NIST Webbook
tb	883.16	K	Joback Method
tc	1082.52	K	Joback Method
tf	337.86	K	Joback Method
vc	1.679	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1484.10	J/mol×K	883.16	Joback Method
cpg	1580.78	J/mol×K	1016.06	Joback Method
cpg	1558.73	J/mol×K	982.84	Joback Method
cpg	1535.32	J/mol×K	949.61	Joback Method
cpg	1510.47	J/mol×K	916.39	Joback Method
cpg	1621.11	J/mol×K	1082.52	Joback Method
cpg	1601.55	J/mol×K	1049.29	Joback Method
cpl	886.36	J/mol×K	298.15	NIST Webbook

dvisc	0.0089900	Paxs	328.26	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0355900	Paxs	293.29	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0279500	Paxs	298.12	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0224500	Paxs	303.07	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0183000	Paxs	308.09	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0150000	Paxs	313.13	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa

dvisc	0.0125000	Paxs	318.17	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0105700	Paxs	323.19	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0602000	Paxs	283.77	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0078000	Paxs	333.20	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0068100	Paxs	338.18	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0060000	Paxs	343.07	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa

dvisc	0.0053200	Pa×s	348.08	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0047200	Pa×s	353.08	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0042000	Pa×s	358.13	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0177740	Pa×s	308.15	Volumetric, transport, and acoustic properties of binary mixtures of 2-methyl-1-propanol with hexadecane and squalane at T = (298.15, 303.15, and 308.15) K: Experimental results, correlation, and prediction by the ERAS model
dvisc	0.0282570	Pa×s	298.15	Temperature and Composition Dependence of the Densities, Viscosities, and Speeds of Sound of Binary Liquid Mixtures of 1-Butanol with Hexadecane and Squalane

dvisc	0.0220870	Pa×s	303.15	Temperature and Composition Dependence of the Densities, Viscosities, and Speeds of Sound of Binary Liquid Mixtures of 1-Butanol with Hexadecane and Squalane
dvisc	0.0177740	Pa×s	308.15	Temperature and Composition Dependence of the Densities, Viscosities, and Speeds of Sound of Binary Liquid Mixtures of 1-Butanol with Hexadecane and Squalane
dvisc	0.0282570	Pa×s	298.15	Volumetric, transport, and acoustic properties of binary mixtures of 2-methyl-1-propanol with hexadecane and squalane at T = (298.15, 303.15, and 308.15) K: Experimental results, correlation, and prediction by the ERAS model
dvisc	0.0177740	Pa×s	308.15	Studies of mixing properties of binary systems of 2-propanol with hexadecane and squalane at T = (298.15, 303.15, and 308.15) K
dvisc	0.0220870	Pa×s	303.15	Studies of mixing properties of binary systems of 2-propanol with hexadecane and squalane at T = (298.15, 303.15, and 308.15) K
dvisc	0.0282570	Pa×s	298.15	Studies of mixing properties of binary systems of 2-propanol with hexadecane and squalane at T = (298.15, 303.15, and 308.15) K

dvisc	0.0461000	Pa×s	288.47	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0037800	Pa×s	362.98	Measurements of the Viscosity of Bis(2-ethylhexyl) Sebacate, Squalane, and Bis(2-ethylhexyl) Phthalate between (283 and 363) K at 0.1 MPa
dvisc	0.0220870	Pa×s	303.15	Volumetric, transport, and acoustic properties of binary mixtures of 2-methyl-1-propanol with hexadecane and squalane at T = (298.15, 303.15, and 308.15) K: Experimental results, correlation, and prediction by the ERAS model
hvapt	116.20	kJ/mol	438.00	NIST Webbook
rfi	1.44740		298.15	Densities, Viscosities, and Refractive Indices of Mixtures of Hexane with Cyclohexane, Decane, Hexadecane, and Squalane at 298.15K
rhoI	764.06	kg/m3	363.15	Temperature and Pressure Dependence of the Viscosities of 2-Ethylhexyl Benzoate, Bis(2-ethylhexyl) Phthalate, 2,6,10,15,19,23-Hexamethyltetracosane (Squalane), and Diisodecyl Phthalate

rhoI	783.14	kg/m3	333.15	Temperature and Pressure Dependence of the Viscosities of 2-Ethylhexyl Benzoate, Bis(2-ethylhexyl) Phthalate, 2,6,10,15,19,23-Hexamethyltetracosane (Squalane), and Diisodecyl Phthalate	
rhoI	776.77	kg/m3	343.15	Temperature and Pressure Dependence of the Viscosities of 2-Ethylhexyl Benzoate, Bis(2-ethylhexyl) Phthalate, 2,6,10,15,19,23-Hexamethyltetracosane (Squalane), and Diisodecyl Phthalate	
rhoI	770.42	kg/m3	353.15	Temperature and Pressure Dependence of the Viscosities of 2-Ethylhexyl Benzoate, Bis(2-ethylhexyl) Phthalate, 2,6,10,15,19,23-Hexamethyltetracosane (Squalane), and Diisodecyl Phthalate	
rhoI	789.53	kg/m3	323.15	Temperature and Pressure Dependence of the Viscosities of 2-Ethylhexyl Benzoate, Bis(2-ethylhexyl) Phthalate, 2,6,10,15,19,23-Hexamethyltetracosane (Squalane), and Diisodecyl Phthalate	
rhoI	811.95	kg/m3	288.15	Temperature and Pressure Dependence of the Viscosities of 2-Ethylhexyl Benzoate, Bis(2-ethylhexyl) Phthalate, 2,6,10,15,19,23-Hexamethyltetracosane (Squalane), and Diisodecyl Phthalate	

rhoI	815.16	kg/m3	283.15	Temperature and Pressure Dependence of the Viscosities of 2-Ethylhexyl Benzoate, Bis(2-ethylhexyl) Phthalate, 2,6,10,15,19,23-Hexamethyltetracosane (Squalane), and Diisodecyl Phthalate
rhoI	821.58	kg/m3	273.15	Temperature and Pressure Dependence of the Viscosities of 2-Ethylhexyl Benzoate, Bis(2-ethylhexyl) Phthalate, 2,6,10,15,19,23-Hexamethyltetracosane (Squalane), and Diisodecyl Phthalate
rhoI	795.93	kg/m3	313.15	Temperature and Pressure Dependence of the Viscosities of 2-Ethylhexyl Benzoate, Bis(2-ethylhexyl) Phthalate, 2,6,10,15,19,23-Hexamethyltetracosane (Squalane), and Diisodecyl Phthalate
rhoI	808.74	kg/m3	293.15	Temperature and Pressure Dependence of the Viscosities of 2-Ethylhexyl Benzoate, Bis(2-ethylhexyl) Phthalate, 2,6,10,15,19,23-Hexamethyltetracosane (Squalane), and Diisodecyl Phthalate
rhoI	805.55	kg/m3	298.15	Temperature and Pressure Dependence of the Viscosities of 2-Ethylhexyl Benzoate, Bis(2-ethylhexyl) Phthalate, 2,6,10,15,19,23-Hexamethyltetracosane (Squalane), and Diisodecyl Phthalate

rhoI	802.34	kg/m3	303.15	Temperature and Pressure Dependence of the Viscosities of 2-Ethylhexyl Benzoate, Bis(2-ethylhexyl) Phthalate, 2,6,10,15,19,23-Hexamethyltetracosane (Squalane), and Diisodecyl Phthalate
sdco	0.00	m2/s	303.18	Viscous Calibration Liquids for Self-diffusion Measurements
sdco	0.00	m2/s	312.99	Viscous Calibration Liquids for Self-diffusion Measurements
sdco	0.00	m2/s	322.69	Viscous Calibration Liquids for Self-diffusion Measurements
sdco	0.00	m2/s	322.72	Viscous Calibration Liquids for Self-diffusion Measurements
sdco	0.00	m2/s	323.16	Viscous Calibration Liquids for Self-diffusion Measurements
sdco	0.00	m2/s	333.03	Viscous Calibration Liquids for Self-diffusion Measurements
sdco	0.00	m2/s	333.49	Viscous Calibration Liquids for Self-diffusion Measurements
sdco	0.00	m2/s	342.81	Viscous Calibration Liquids for Self-diffusion Measurements
sdco	0.00	m2/s	348.20	Viscous Calibration Liquids for Self-diffusion Measurements
sdco	0.00	m2/s	352.82	Viscous Calibration Liquids for Self-diffusion Measurements

sdco	0.00	m2/s	353.15	Viscous Calibration Liquids for Self-diffusion Measurements	
sdco	0.00	m2/s	362.60	Viscous Calibration Liquids for Self-diffusion Measurements	
sdco	0.00	m2/s	303.00	Viscous Calibration Liquids for Self-diffusion Measurements	
sdco	0.00	m2/s	362.88	Viscous Calibration Liquids for Self-diffusion Measurements	
sdco	0.00	m2/s	298.44	Viscous Calibration Liquids for Self-diffusion Measurements	
sdco	0.00	m2/s	298.19	Viscous Calibration Liquids for Self-diffusion Measurements	
sdco	0.00	m2/s	293.19	Viscous Calibration Liquids for Self-diffusion Measurements	
sdco	0.00	m2/s	293.13	Viscous Calibration Liquids for Self-diffusion Measurements	
sdco	0.00	m2/s	288.28	Viscous Calibration Liquids for Self-diffusion Measurements	
sdco	0.00	m2/s	283.30	Viscous Calibration Liquids for Self-diffusion Measurements	
sdco	0.00	m2/s	362.82	Viscous Calibration Liquids for Self-diffusion Measurements	

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.62095e+01
Coeff. B	-6.60264e+03
Coeff. C	-1.41310e+02
Temperature range (K), min.	556.00
Temperature range (K), max.	747.17

Datasets

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

Temperature, K - Liquid	Pressure, kPa - Liquid	Molar heat capacity at constant pressure, J/K/mol - Liquid
293.15	100.00	879.00
293.15	10000.00	873.50
293.15	20000.00	868.50
293.15	30000.00	865.50
313.15	100.00	904.40
313.15	10000.00	898.90
313.15	20000.00	896.40
313.15	30000.00	893.40
333.15	100.00	943.30
333.15	10000.00	940.80
333.15	20000.00	936.10
333.15	30000.00	929.30
353.15	100.00	978.80
353.15	10000.00	973.70
353.15	20000.00	963.20
353.15	30000.00	959.80

Reference

<https://www.doi.org/10.1016/j.jct.2012.01.011>

Viscosity, Pa*s

Temperature, K - Liquid	Pressure, kPa - Liquid	Viscosity, Pa*s - Liquid
273.15	100.00	0.1166000
273.15	10000.00	0.1524000
273.15	20000.00	0.1994000
273.15	30000.00	0.2614000
293.15	100.00	0.0353000
293.15	10000.00	0.0436000
293.15	20000.00	0.0540000
293.15	30000.00	0.0656000
313.15	100.00	0.0154000
313.15	10000.00	0.0183000
313.15	20000.00	0.0227000
313.15	30000.00	0.0275000
333.15	100.00	0.0078500
333.15	10000.00	0.0094300
333.15	20000.00	0.0110000
333.15	30000.00	0.0131000

Reference

<https://www.doi.org/10.1007/s10765-006-0053-2>

Temperature, K	Pressure, kPa	Viscosity, Pa*s
338.15	50600.00	0.0155600
338.15	102800.00	0.0329400
338.15	150200.00	0.0609000
338.15	198400.00	0.1089000
338.15	249700.00	0.1940000
338.15	272700.00	0.2438000
338.15	299800.00	0.3276000
338.15	349200.00	0.5385000
338.15	349200.00	0.5310000
348.15	198300.00	0.0708300
348.15	200400.00	0.0726300
348.15	300600.00	0.2029000
348.15	349800.00	0.3276000
363.15	10200.00	0.0043600
363.15	21000.00	0.0051500
363.15	30900.00	0.0059700
363.15	40700.00	0.0068400
363.15	50600.00	0.0078200

363.15	60600.00	0.0089400
363.15	70700.00	0.0101800
363.15	80600.00	0.0114900
363.15	91000.00	0.0130600
363.15	100000.00	0.0145900
363.15	120400.00	0.0183600
363.15	150300.00	0.0255600
363.15	200200.00	0.0428200
363.15	225600.00	0.0550300
363.15	246900.00	0.0662300

Reference

<https://www.doi.org/10.1016/j.jct.2013.10.001>

Temperature, K	Pressure, kPa	Viscosity, Pa*s
303.15	10000.00	0.0274000
303.15	15000.00	0.0308000
303.15	25000.00	0.0382000
303.15	50000.00	0.0627000
303.15	75000.00	0.0985000
303.15	100000.00	0.1508000
303.15	125000.00	0.2274000
303.15	150000.00	0.3395000
313.15	10000.00	0.0184000
313.15	15000.00	0.0204000
313.15	25000.00	0.0248000
313.15	50000.00	0.0391000
313.15	75000.00	0.0595000
313.15	100000.00	0.0887000
313.15	125000.00	0.1303000
313.15	150000.00	0.1898000
323.15	10000.00	0.0130000
323.15	15000.00	0.0143000
323.15	25000.00	0.0171000
323.15	50000.00	0.0261000
323.15	75000.00	0.0387000
323.15	100000.00	0.0563000
323.15	125000.00	0.0809000
323.15	150000.00	0.1154000
333.15	10000.00	0.0092000
333.15	15000.00	0.0101000
333.15	25000.00	0.0121000
333.15	50000.00	0.0182000
333.15	75000.00	0.0265000

333.15	100000.00	0.0378000
333.15	125000.00	0.0532000
333.15	150000.00	0.0740000
343.15	10000.00	0.0070000
343.15	15000.00	0.0076000
343.15	25000.00	0.0090000
343.15	50000.00	0.0133000
343.15	75000.00	0.0190000
343.15	100000.00	0.0267000
343.15	125000.00	0.0370000
343.15	150000.00	0.0508000
353.15	10000.00	0.0054000
353.15	15000.00	0.0059000
353.15	25000.00	0.0069000
353.15	50000.00	0.0101000
353.15	75000.00	0.0142000
353.15	100000.00	0.0195000
353.15	125000.00	0.0264000
353.15	150000.00	0.0355000

Reference

<https://www.doi.org/10.1016/j.jct.2015.03.002>

Temperature, K	Pressure, kPa	Viscosity, Pa*s
303.15	10000.00	0.0281000
303.15	15000.00	0.0314000
303.15	25000.00	0.0387000
303.15	50000.00	0.0623000
303.15	75000.00	0.0975000
303.15	100000.00	0.1497000
303.15	125000.00	0.2270000
303.15	150000.00	0.3410000
313.15	10000.00	0.0182000
313.15	15000.00	0.0203000
313.15	25000.00	0.0249000
313.15	50000.00	0.0398000
313.15	75000.00	0.0610000
313.15	100000.00	0.0913000
313.15	125000.00	0.1346000
313.15	150000.00	0.1964000
343.15	10000.00	0.0073000
343.15	15000.00	0.0079400
343.15	25000.00	0.0093200
343.15	50000.00	0.0136000

343.15	75000.00	0.0193000
343.15	100000.00	0.0270000
343.15	125000.00	0.0372000
343.15	150000.00	0.0510000
353.15	10000.00	0.0055600
353.15	15000.00	0.0060400
353.15	25000.00	0.0070500
353.15	50000.00	0.0101000
353.15	75000.00	0.0140000
353.15	100000.00	0.0193000
353.15	125000.00	0.0263000
353.15	150000.00	0.0356000

Reference

<https://www.doi.org/10.1016/j.jct.2019.06.016>

Temperature, K	Pressure, kPa	Viscosity, Pa*s
303.18	1070.00	0.0220000
303.18	5300.00	0.0242000
303.18	5740.00	0.0244000
303.18	15580.00	0.0303000
303.18	25530.00	0.0369000
303.18	35790.00	0.0443000
303.18	45770.00	0.0546000
303.18	55770.00	0.0663000
348.13	5270.00	0.0055900
348.13	5290.00	0.0056000
348.13	25490.00	0.0077900
348.13	56280.00	0.0123000
348.13	85860.00	0.0184000
348.13	115830.00	0.0269000
348.13	145930.00	0.0387000
348.13	175120.00	0.0556000
398.15	5160.00	0.0021700
398.15	5230.00	0.0021700
398.15	25310.00	0.0028900
398.15	56100.00	0.0042400
398.15	85890.00	0.0058800
398.15	115450.00	0.0079300
398.15	145820.00	0.0106000
398.15	176100.00	0.0138000
448.25	5580.00	0.0011700
448.25	5730.00	0.0011800
448.25	25470.00	0.0015400

448.25	55510.00	0.0021700
448.25	85620.00	0.0028900
448.25	115510.00	0.0037600
448.25	145580.00	0.0047800
448.25	176050.00	0.0059900

Reference

<https://www.doi.org/10.1021/je800894y>

Mass density, kg/m3

Pressure, kPa - Liquid	Temperature, K - Liquid	Mass density, kg/m3 - Liquid
100.00	298.15	804.9
1000.00	298.15	805.4
5000.00	298.15	807.8
10000.00	298.15	810.7
15000.00	298.15	813.4
20000.00	298.15	816.1
30000.00	298.15	821.2
40000.00	298.15	826.0
45000.00	298.15	828.3
50000.00	298.15	830.5
60000.00	298.15	834.8
100.00	323.15	789.0
1000.00	323.15	789.6
5000.00	323.15	792.3
10000.00	323.15	795.5
15000.00	323.15	798.6
20000.00	323.15	801.5
30000.00	323.15	807.1
40000.00	323.15	812.3
45000.00	323.15	814.8
50000.00	323.15	817.2
60000.00	323.15	821.9
100.00	348.15	773.0
1000.00	348.15	773.7
5000.00	348.15	776.7
10000.00	348.15	780.3
15000.00	348.15	783.7
20000.00	348.15	787.0
30000.00	348.15	793.2
40000.00	348.15	799.0

45000.00	348.15	801.7
50000.00	348.15	804.3
60000.00	348.15	809.3
1000.00	373.15	758.0
5000.00	373.15	761.3
10000.00	373.15	765.3
15000.00	373.15	769.1
20000.00	373.15	772.7
30000.00	373.15	779.5
40000.00	373.15	785.8
45000.00	373.15	788.7
50000.00	373.15	791.6
60000.00	373.15	797.1
1000.00	398.15	742.1
5000.00	398.15	745.9
10000.00	398.15	750.4
15000.00	398.15	754.6
20000.00	398.15	758.6
30000.00	398.15	766.1
40000.00	398.15	772.9
45000.00	398.15	776.1
50000.00	398.15	779.1
60000.00	398.15	785.0

Reference

<https://www.doi.org/10.1016/j.jct.2009.07.013>

Temperature, K	Pressure, kPa	Mass density, kg/m3
313.15	5700.00	798.1
313.15	13500.00	804.3
313.15	23500.00	811.4
313.15	45700.00	822.6
313.15	68000.00	832.5
338.15	7900.00	783.2
338.15	11000.00	785.2
338.15	22500.00	793.3
338.15	45600.00	807.5
338.15	60500.00	814.6
338.15	76300.00	820.5
363.15	10600.00	769.9
363.15	21500.00	777.9
363.15	42500.00	791.1
363.15	63700.00	802.4

Temperature, K	Pressure, kPa	Mass density, kg/m ³
278.15	100.00	818.1
278.15	1000.00	818.59
278.15	5000.00	820.71
278.15	10000.00	823.31
278.15	15000.00	825.81
278.15	20000.00	828.24
278.15	25000.00	830.59
278.15	30000.00	832.87
278.15	35000.00	835.07
278.15	40000.00	837.21
278.15	45000.00	839.31
283.15	100.00	814.75
283.15	1000.00	815.25
283.15	5000.00	817.45
283.15	10000.00	820.16
283.15	15000.00	822.72
283.15	20000.00	825.21
283.15	25000.00	827.62
283.15	30000.00	829.94
283.15	35000.00	832.23
283.15	40000.00	834.41
283.15	45000.00	836.54
293.15	100.00	808.27
293.15	1000.00	808.81
293.15	5000.00	811.1
293.15	10000.00	813.88
293.15	15000.00	816.58
293.15	20000.00	819.18
293.15	25000.00	821.67
293.15	30000.00	824.14
293.15	35000.00	826.49
293.15	40000.00	828.81
293.15	45000.00	831.04
303.15	100.00	801.88
303.15	1000.00	802.43
303.15	5000.00	804.87
303.15	10000.00	807.78
303.15	15000.00	810.59
303.15	20000.00	813.29

303.15	25000.00	815.92
303.15	30000.00	818.45
303.15	35000.00	820.92
303.15	40000.00	823.29
303.15	45000.00	825.61
313.15	100.00	795.53
313.15	1000.00	796.12
313.15	5000.00	798.64
313.15	10000.00	801.68
313.15	15000.00	804.61
313.15	20000.00	807.43
313.15	25000.00	810.22
313.15	30000.00	812.78
313.15	35000.00	815.35
313.15	40000.00	817.81
313.15	45000.00	820.22
323.15	100.00	789.06
323.15	1000.00	789.69
323.15	5000.00	792.34
323.15	10000.00	795.54
323.15	15000.00	798.63
323.15	20000.00	801.58
323.15	25000.00	804.45
323.15	30000.00	807.17
323.15	35000.00	809.84
323.15	40000.00	812.42
323.15	45000.00	814.91
333.15	100.00	782.73
333.15	1000.00	783.37
333.15	5000.00	786.19
333.15	10000.00	789.56
333.15	15000.00	792.76
333.15	20000.00	795.83
333.15	25000.00	798.79
333.15	30000.00	801.62
333.15	35000.00	804.39
333.15	40000.00	807.03
333.15	45000.00	809.62
343.15	100.00	776.31
343.15	1000.00	777.0
343.15	5000.00	779.93
343.15	10000.00	783.45
343.15	15000.00	786.81
343.15	20000.00	790.03

343.15	25000.00	793.12
343.15	30000.00	796.08
343.15	35000.00	798.94
343.15	40000.00	801.71
343.15	45000.00	804.4
353.15	100.00	770.03
353.15	1000.00	770.73
353.15	5000.00	773.84
353.15	10000.00	777.5
353.15	15000.00	781.02
353.15	20000.00	784.36
353.15	25000.00	787.57
353.15	30000.00	790.66
353.15	35000.00	793.62
353.15	40000.00	796.47
353.15	45000.00	799.24

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Temperature, K	Pressure, kPa	Mass density, kg/m3
338.19	1050.00	779.26
338.19	21210.00	792.77
338.20	40640.00	803.93
338.20	60420.00	814.29
338.20	79830.00	822.46
338.20	100230.00	831.55
338.21	119820.00	837.96
338.20	140240.00	845.12
338.20	161300.00	851.46
338.22	940.00	778.91
373.12	780.00	756.09
373.12	20350.00	771.55
373.12	39970.00	784.5
373.12	60030.00	795.89
373.12	80950.00	806.36
373.12	101160.00	815.48
373.12	120420.00	823.57
373.12	140640.00	831.1
373.12	159510.00	837.61
373.12	180460.00	843.98
373.12	201380.00	850.63
373.12	620.00	756.02
388.14	1100.00	746.78

388.13	20290.00	762.98
388.14	40380.00	776.95
388.14	59850.00	788.53
388.13	80490.00	799.25
388.13	101530.00	809.12
388.13	120960.00	817.16
388.13	139900.00	824.59
388.14	160800.00	832.35
388.14	180610.00	838.96
388.14	201470.00	845.55
388.13	890.00	746.65
413.17	1050.00	730.56
413.18	20110.00	748.65
413.18	40280.00	763.94
413.18	60200.00	776.68
413.21	80740.00	788.16
413.22	100350.00	797.82
413.22	120460.00	806.56
413.24	140200.00	815.07
413.25	160570.00	822.8
413.25	181450.00	829.85
413.25	202090.00	836.75
413.24	610.00	730.1
433.36	680.00	717.22
433.31	600.00	717.04
433.35	20500.00	737.74
433.36	40310.00	753.83
433.19	60430.00	767.55
433.20	80190.00	779.13
433.21	100280.00	789.84
433.21	120040.00	798.72
433.21	140200.00	807.55
433.19	160660.00	815.65
433.19	180700.00	823.09
433.19	200370.00	830.05
433.18	1120.00	717.8
453.15	1150.00	704.74
453.16	20190.00	726.4
453.17	40450.00	744.09
453.18	60480.00	758.43
453.18	80140.00	770.59
453.18	100410.00	781.58
453.20	120790.00	791.61
453.20	140400.00	800.32

453.19	160150.00	808.49
453.20	180710.00	816.55
338.29	1010.00	779.46
452.95	163170.00	809.3
452.95	180270.00	815.84
452.85	201770.00	823.37
473.05	150.00	690.19
472.81	1050.00	691.59
473.05	20040.00	715.2
473.05	39890.00	733.71
473.06	60230.00	749.17
473.06	79910.00	761.86
473.07	100370.00	773.42
473.05	120200.00	783.48
473.05	140440.00	792.71
473.05	160340.00	801.0
473.05	180470.00	808.83
473.03	200210.00	815.83
473.04	1050.00	691.45

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Solubility Measurements of 1,1,1,2-Tetrafluoroethane (R134a) and of Propane and Squalane Dependence of the (293.15 to 350) K and Pressures from 0.01 to 50 MPa of Binary Liquid Mixtures of 1-Butanol with Hexadecane and Squalane Densities, Viscosities, and Refractive Indices of Mixtures of Hexane with Cyclohexane, Octane, Decane, and Alkane-Squalane Systems: Joback Method:

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Viscosity and Density of Carbon Dioxide + 1,1,1,2-Tetrafluoroethane, 1,1,1,2-Tetrafluoroethane + Hexadecane, and 1,1,1,2-Tetrafluoroethane + Squalane: Densities, Viscosities, and Refractive Indices of the Binary Mixtures of 1,1,1,2-Tetrafluoroethane with Hexadecane and Squalane at Pressures up to 30 MPa: Binary Liquid Mixtures of 1-Butanol with Hexadecane and Squalane: Densities, Viscosities, and Refractive Indices of Mixtures of Hexane with Cyclohexane, Octane, Decane, and Alkane-Squalane Systems: Joback Method:

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Studies of mixing properties of binary systems of 2-propanol with
 McGowan Method
 Noxane and Squalane at T =
 (298.15, 303.15, and 308.15) K:
 Temperature and Pressure Dependence
 of the Viscosities of 2-Ethylhexyl
 High Pressure PVT Density Behavior of
 2-Ethylhexyl, 2-Ethylhexyl Tetrahydrofuran,
 2-Ethylhexyl Hexane, and 2-Ethylhexyl
 Octane Viscosity of Two
 Nonaerated and Disoodecyl Phthalate:
 1-butyl-1-methylpyrrolidinium Ionic
 Liquids Method of the temperature and
 pressure:
 Phase Equilibrium of Hydrogen,
 Carbon Dioxide, Squalene, and
 Squalane
 Compressed Liquid Densities of
 Squalane and Pentaerythritol
 Tetraerythritol
 A new experimental setup for isobaric heat
 capacities for viscous fluids at high
 pressure: Squalane, 5B(2-ethylhexyl)
 decanoate and 2,2,4,4-tetramethyl-5-
 phenyl-1,3-dioxolane
 New experimental data on density
 and viscosity of 2-Ethylhexyl
 decanoate for the viscosity and density of
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 behavior, density, and viscosity of oil
 Measurement of the Liquid Viscosities
 of Mixtures of Isobutane with Squalane
 Vapor-Liquid Equilibrium
 Measurements for Carbon Dioxide +
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Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rfi:	Refractive Index
rho:	Liquid Density
rinpol:	Non-polar retention indices
sdco:	Self diffusion coefficient
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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