

Table 1: All trivial properties

Fluid	Ttriple	Tcrit	Tmax	Ptriple	Pcrit	Pmax
1-Butene	87.8	419.29	525.0	7.5636645438375e-07	4005100.0	50000000.0
Acetone	178.5	508.1	550.0	2.3264868864004	4700000.0	70000000.0
Air	59.75	132.5306	2000.0	5264.1810687706	3786000.0	200000000.0
Ammonia	195.495	405.56	725.0	6091.2231081315	11363400.0	100000000.0
Argon	83.806	150.687	2000.0	68892.477079767	4863000.0	100000000.0
Benzene	278.674	562.02	725.0	4783.7725786985	4894000.0	50000000.0
CarbonDioxide	216.592	304.1282	2000.0	517964.34344773	7377300.0	80000000.0
CarbonMonoxide	68.16	132.86	500.0	15536.876656447	3494000.0	10000000.0
CarbonylSulfide	134.3	378.77	650.0	64.434578008233	6370000.0	50000000.0
CycloHexane	279.47	553.6	700.0	5240.2043769323	4082400.0	25000000.0
CycloPropane	273.0	398.3	473.0	342702.20373565	5579700.0	28000000.0
Cyclopentane	179.7	511.72	550.0	8.8542714131096	4571200.0	25000000.0
D4	290.25	586.5	1200.0	73.066099638131	1347215.3560905	18000000.0
D5	226.0	618.3	630.0	0.0020593212230361	1077687.7802566	12000000.0
D6	270.2	645.78	673.0	0.15975299882422	961000.0	30000000.0
Deuterium	18.724	38.34	600.0	17189.101973451	1679600.0	200000000.0
Dichloroethane	237.52	561.6	1000.0	239.86831029712	5227585.1030824	100000000.0
DiethylEther	270.0	466.7	548.0	21283.811029807	3649016.8965285	10000000.0
DimethylCarbonate	277.06	557.0	600.0	2226.5237272168	4908800.0	60000000.0
DimethylEther	131.66	400.378	525.0	2.2107284911072	5336800.0	50000000.0
Ethane	90.368	305.322	675.0	1.1421076390852	4872200.0	90000000.0
Ethanol	159.1	514.71	650.0	0.00073539282251727	6268000.0	28000000.0

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Table 1: All trivial properties (Continued)

Fluid	Ttriple	Tcrit	Tmax	Ptriple	Pcrit	Pmax
EthylBenzene	178.2	617.12	700.0	0.0040036211722146	3622400.0	60000000.0
Ethylene	103.989	282.35	450.0	122.02676384261	5041800.0	300000000.0
EthyleneOxide	160.65	468.92	1000.0	8.2516140654678	7304686.1596359	1000000000.0
Fluorine	53.4811	144.414	300.0	238.81033208718	5172400.0	20000000.0
HFE143m	240.0	377.921	420.0	65359.393006808	3635000.0	7200000.0
HeavyWater	276.969	643.847	825.0	661.58713667108	21661831.002706	1200000000.0
Helium	2.1768	5.1953	2000.0	5033.5488966581	227600.0	1000000000.0
Hydrogen	13.957	33.145	1000.0	7357.8281416077	1296400.0	2000000000.0
HydrogenChloride	159.07	324.55	670.0	13828.404678929	8291521.2079672	680000000.0
HydrogenSulfide	187.7	373.1	760.0	23258.855838991	9000000.0	170000000.0
IsoButane	113.73	407.817	575.0	0.022890839011894	3629000.0	35000000.0
IsoButene	132.4	418.09	550.0	0.67618999773454	4009800.0	50000000.0
Isohexane	119.6	497.7	550.0	7.7444866675025e-06	3040000.0	1000000000.0
Isopentane	112.65	460.35	500.0	8.949025483877e-05	3378000.0	1000000000.0
Krypton	115.77	209.48	750.0	73502.837476369	5525000.0	200000000.0
MD2M	205.2	599.4	600.0	0.00031293301873448	1144024.296357	130000000.0
MD3M	192.0	628.0	673.0	6.1440360261493e-07	953950.31023688	125000000.0
MD4M	214.15	653.2	655.0	6.9196330327684e-07	828558.72206608	125000000.0
MDM	187.2	564.09	575.0	0.0010820636776824	1410044.7558166	130000000.0
MM	204.93	518.75	673.0	2.953770130269	1939000.0	30000000.0
Methane	90.6941	190.564	625.0	11696.064114962	4599200.0	1000000000.0
Methanol	175.61	512.5	620.0	0.18676381241403	8215850.0	500000000.0

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Table 1: All trivial properties (Continued)

Fluid	Ttriple	Tcrit	Tmax	Ptriple	Pcrit	Pmax
MethylLinoleate	260.0	799.0	1000.0	1.3112507347085e-06	1341000.0	50000000.0
MethylLinolenate	260.0	772.0	1000.0	7.3993696344778e-07	1369000.0	50000000.0
MethylOleate	253.47	782.0	1000.0	4.571708015418e-07	1246000.0	50000000.0
MethylPalmitate	302.71	755.0	1000.0	0.016401356190562	1350000.0	50000000.0
MethylStearate	311.84	775.0	1000.0	0.006010956044723	1239000.0	50000000.0
Neon	24.56	44.4	725.0	43417.232458066	2661630.8085949	1000000000.0
Neopentane	256.6	433.74	550.0	35400.947326931	3196000.0	200000000.0
Nitrogen	63.151	126.192	2000.0	12519.783484309	3395800.0	2200000000.0
NitrousOxide	182.33	309.52	525.0	87837.439225985	7245000.0	50000000.0
Novec649	165.0	441.81	500.0	0.23145335205371	1869026.5830641	50000000.0
OrthoDeuterium	18.724	38.34	600.0	17189.101989626	1679600.0	2000000000.0
OrthoHydrogen	14.008	33.22	1000.0	7559.882341105	1310650.0	2000000000.0
Oxygen	54.361	154.581	2000.0	146.2776470581	5043000.0	80000000.0
ParaDeuterium	18.724	38.34	600.0	17189.101977541	1679600.0	2000000000.0
ParaHydrogen	13.8033	32.938	1000.0	7041.0867514993	1285800.0	2000000000.0
Propylene	87.953	364.211	575.0	0.00074694803135334	4555000.0	1000000000.0
Propyne	273.0	402.38	474.0	263566.90598815	5626000.0	31800000.0
R11	162.68	471.06	625.0	6.5100898341779	4394000.0	100000000.0
R113	236.93	487.21	525.0	1871.4275472708	3392200.0	200000000.0
R114	273.15	418.83	507.0	88162.386761553	3257000.0	21000000.0
R115	173.57	353.1	550.0	2178.2318283618	3129036.9682787	60000000.0
R116	173.1	293.03	425.0	26083.734154672	3048000.0	50000000.0

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Table 1: All trivial properties (Continued)

Fluid	Ttriple	Tcrit	Tmax	Ptriple	Pcrit	Pmax
R12	116.099	385.12	525.0	0.24255080068811	4136100.0	200000000.0
R123	166.0	456.831	600.0	4.2021338024446	3672000.0	76000000.0
R1233zd(E)	195.15	439.6	550.0	273.3075819844	3623637.7763648	100000000.0
R1234yf	220.0	367.85	410.0	31507.558848476	3382200.0	30000000.0
R1234ze(E)	168.62	382.52	420.0	218.58002181737	3634936.8510217	15000000.0
R1234ze(Z)	273.0	423.27	440.0	67849.185886603	3530619.6704497	34000000.0
R124	120.0	395.425	470.0	0.026738623617928	3624295.0	40000000.0
R1243zf	220.0	376.93	410.0	25832.072524918	3517867.1261784	30000000.0
R125	172.52	339.173	500.0	2914.0460092555	3617700.0	60000000.0
R13	98.15	301.88	450.0	0.90557248939173	3879000.0	50000000.0
R134a	169.85	374.21	455.0	389.56378856199	4059280.0	70000000.0
R13I1	120.0	396.44	420.0	0.46237424272463	3952566.0717187	50000000.0
R14	120.0	227.51	623.0	11294.329044414	3750000.0	51000000.0
R141b	169.68	477.5	500.0	6.4927353342624	4212000.0	400000000.0
R142b	142.72	410.26	470.0	3.6326514405276	4055000.0	60000000.0
R143a	161.34	345.857	650.0	1074.9454424528	3761000.0	150000000.0
R152A	154.56	386.411	500.0	64.138649736947	4520000.0	58000000.0
R161	130.0	375.25	450.0	5.5122696440563	5010000.0	5000000.0
R21	200.0	451.48	473.0	872.83498017701	5181200.0	138000000.0
R218	125.45	345.02	440.0	2.0185735822361	2640000.0	20000000.0
R22	115.73	369.295	550.0	0.37947473219729	4990000.0	60000000.0
R227EA	146.35	374.9	475.0	7.3315591691083	2925242.2339448	60000000.0

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Table 1: All trivial properties (Continued)

Fluid	Ttriple	Tcrit	Tmax	Ptriple	Pcrit	Pmax
R23	118.02	299.293	475.0	58.040994162229	4832000.0	120000000.0
R236EA	243.0	412.44	412.0	17498.188401644	3420000.0	6000000.0
R236FA	179.6	398.07	400.0	160.32677882015	3200000.0	70000000.0
R245ca	196.0	447.57	450.0	118.27911719958	3940740.4887504	10000000.0
R245fa	171.05	427.01	440.0	13.757432509477	3651000.0	200000000.0
R32	136.34	351.255	435.0	47.999893876059	5782000.0	70000000.0
R365MFC	239.0	460.0	500.0	2478.4152511989	3266207.0678832	35000000.0
R40	230.0	416.3	730.0	40560.96127613	6671686.9771418	100000000.0
R404A	200.0	345.27	500.0	22649.187475165	3734800.0	50000000.0
R407C	200.0	359.345	500.0	19158.05451545	4631700.0	50000000.0
R41	129.82	317.28	425.0	344.19906448776	5897000.0	70000000.0
R410A	200.0	344.494	500.0	29160.33537476	4901200.0	50000000.0
R507A	200.0	343.765	500.0	23232.99281981	3704900.0	50000000.0
RC318	233.35	388.38	623.0	19461.056081373	2777500.0	60000000.0
SES36	200.0	450.7	725.0	573.28987122268	2849000.0	500000000.0
SulfurDioxide	197.7	430.64	525.0	1666.1440792365	7886587.6003464	35000000.0
SulfurHexafluoride	223.555	318.7232	625.0	231424.47395151	3754983.0	150000000.0
Toluene	178.0	591.75	700.0	0.039393408982429	4126000.0	500000000.0
Water	273.16	647.096	2000.0	611.65480089687	22064000.0	1000000000.0
Xenon	161.4	289.733	750.0	81747.799073289	5842000.0	700000000.0
cis-2-Butene	134.3	435.75	525.0	0.26364972150926	4225500.0	50000000.0
m-Xylene	225.3	616.89	700.0	3.12326755569	3534600.0	200000000.0

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Table 1: All trivial properties (Continued)

Fluid	Ttriple	Tcrit	Tmax	Ptriple	Pcrit	Pmax
n-Butane	134.895	425.125	575.0	0.66565822080789	3796000.0	12000000.0
n-Decane	243.5	617.7	675.0	1.404183902422	2103000.0	80000000.0
n-Dodecane	263.6	658.1	700.0	0.62621086350047	1817000.0	20000000.0
n-Heptane	182.55	540.13	600.0	0.17549028983207	2736000.0	10000000.0
n-Hexane	177.83	507.82	600.0	1.188979069628	3044115.3283597	9200000.0
n-Nonane	219.7	594.55	600.0	0.4444853476665	2281000.0	80000000.0
n-Octane	216.37	568.74	730.0	2.0745859950296	2483591.1996777	100000000.0
n-Pentane	143.47	469.7	650.0	0.078028073273564	3367518.9947363	78000000.0
n-Propane	85.525	369.89	650.0	0.00017184840809309	4251200.0	100000000.0
n-Undecane	247.541	638.8	700.0	0.44605583089066	1990400.0	50000000.0
o-Xylene	247.985	630.259	700.0	22.805776335707	3737500.0	7000000.0
p-Xylene	286.4	616.168	700.0	580.08500237559	3531500.0	20000000.0
trans-2-Butene	167.6	428.61	525.0	74.816690773567	4027300.0	5000000.0