

LABORATORY SOLVENTS AND OTHER LIQUID REAGENTS

This table summarizes the properties of 575 liquids that are commonly used in the laboratory as solvents or chemical reagents.

The properties tabulated are:

M_r : Molecular weight
 t_m : Melting point in °C
 t_b : Normal boiling point in °C
 ρ : Density in g/mL at the temperature in °C indicated by the superscript
 η : Viscosity in mPa s (1 mPa s = 1 centipoise)
 ϵ : Dielectric constant at ambient temperature (15 to 30°C)
 μ : Dipole moment in D
 c_p : Specific heat capacity of the liquid at constant pressure at 25°C in J/g K
 vp : Vapor pressure at 25°C in kPa (1 kPa = 7.50 mmHg)
 FP : Flash point in °C
 $Fl.Lim$: Flammable (explosive) limit in air in percent by volume
 IT : Autoignition temperature in °C
 TLV : Threshold limit for allowable airborne concentration in parts per million by volume at 25°C and atmospheric pressure

Data on the temperature dependence of viscosity, dielectric constant, and vapor pressure can be found in the pertinent tables in this *Handbook*.

References

1. Lide, D. R., *Handbook of Organic Solvents*, CRC Press, Boca Raton, FL, 1994.
2. Lide, D. R., and Kehiaian, H. V., *Handbook of Thermophysical and Thermochemical Data*, CRC Press, Boca Raton, FL, 1994.
3. Riddick, J. A., Bunger, W. B., and Sakano, T. K., *Organic Solvents, Fourth Edition*, John Wiley & Sons, New York, 1986.
4. *Fire Protection Guide to Hazardous Materials, 11th Edition*, National Fire Protection Association, Quincy, MA, 1994.
5. Urben, P. G., Ed., *Bretherick's Handbook of Reactive Chemical Hazards, 5th Edition*, Butterworth-Heinemann, Oxford, 1995.
6. *2004 TLVs and BETs*, American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Cincinnati, OH 45240-1634, 2004.

Name	Mol. form.	M_r	$t_m/^\circ\text{C}$	$t_b/^\circ\text{C}$	$\rho/\text{g mL}^{-1}$	$\eta/\text{mPa s}$	ϵ	μ/D	$c_p/\text{J g}^{-1}\text{K}^{-1}$	vp/kPa	$FP/^\circ\text{C}$	Fl. lim.	$IT/^\circ\text{C}$	TLV/ppm
Acetaldehyde	C ₂ H ₄ O	44.052	-123.37	20.1	0.7834 ¹⁸		21.0	2.750	2.020	120	-39	4-60%	175	25
Acetic acid	C ₂ H ₄ O ₂	60.052	16.64	117.9	1.0446 ²⁵	1.056	6.20	1.70	2.053	2.07	39	4-20%	463	10
Acetic anhydride	C ₄ H ₆ O ₃	102.089	-74.1	139.5	1.082 ²⁰	0.843	22.45	≈ 2.8	1.648	0.680	49	2.7-10.3%	316	5
Acetone	C ₃ H ₆ O	58.079	-94.7	56.05	0.7845 ²⁵	0.306	21.01	2.88	2.175	30.8	-20	3-13%	465	500
Acetone cyanohydrin	C ₄ H ₇ NO	85.105	-19	95	0.932 ¹⁹						74	2.2-12%	688	4.6
Acetonitrile	C ₂ H ₃ N	41.052	-43.82	81.65	0.7857 ²⁰	0.369	36.64	3.92	2.229	11.9	6	3-16%	524	20
Acetophenone	C ₈ H ₈ O	120.149	20.5	202	1.0281 ²⁰	1.681	17.44	3.02	1.703	0.049	77		570	10
Acetyl bromide	C ₂ H ₃ BrO	122.948	-96	76	1.6625 ¹⁶						16.2			
Acetyl chloride	C ₂ H ₃ ClO	78.497	-112.8	50.7	1.1051 ²⁰	0.368	15.8	2.72	1.491	38.4	4		390	
Acrolein	C ₃ H ₄ O	56.063	-87.7	52.6	0.840 ²⁰			3.1		36.2	-26	2.8-31%	220	0.1
Acrylic acid	C ₃ H ₄ O ₂	72.063	12.5	141	1.0511 ²⁰				2.022	0.53	50	2.4-8%	438	2
Acrylonitrile	C ₃ H _{3.5} N	53.063	-83.48	77.3	0.8007 ²⁵		33.0	3.87	2.05	14.1	0	3-17%	481	2
Allyl alcohol	C ₃ H ₆ O	58.079	-129	97.0	0.8540 ²⁰	1.218	19.7	1.60	2.392	3.14	21	3-18%	378	0.5
Allylamine	C ₃ H ₇ N	57.095	-88.2	53.3	0.758 ²⁰			1.2		33.1	-29	2-22%	374	
2-Amino-2-methyl-1-propanol	C ₄ H ₁₁ NO	89.136	25.5	165.5	0.934 ²⁰						67			
3-Amino-1-propanol	C ₃ H ₇ NO	75.109	12.4	187.5	0.9824 ²⁶						80			
Aniline	C ₆ H ₇ N	93.127	-6.02	184.17	1.0217 ²⁰	3.85	7.06	1.13	2.061	0.090	70	1.3-11%	615	2
Anisole	C ₇ H ₈ O	108.138	-37.13	153.7	0.9940 ²⁰	1.056	4.30	1.38	1.840	0.472	52		475	
Antimony(V) chloride	Cl ₅ Sb	299.024	4	140 dec	2.34		3.222							
Antimony(V) fluoride	F ₅ Sb	216.752	8.3	141	3.10									
Arsenic(III) chloride	AsCl ₃	181.280	-16	130	2.150			1.59		5.38				
Benzaldehyde	C ₇ H ₆ O	106.122	-57.1	178.8	1.0401 ²⁵		17.85	3.0	1.621	0.169	63		192	
Benzene	C ₆ H ₆	78.112	5.49	80.09	0.8765 ²⁰	0.604	2.2825	0	1.741	12.7	-11	1-8%	498	0.5
Benzeneacetonitrile	C ₈ H ₇ N	117.149	-23.8	233.5	1.0205 ¹⁵		17.87	3.5		0.012	113			
Benzeneethanamine	C ₈ H ₁₁ N	121.180	<0	195	0.9640 ²⁵									
Benzeneethanol	C ₈ H ₁₀ O	122.164	-27	218.2	1.0202 ²⁰		12.31		2.068	0.01	96			
Benzenemethanethiol	C ₇ H ₈ S	124.204	-30	194.5	1.058 ²⁰		4.705							
Benzenesulfonyl chloride	C ₆ H ₅ ClO ₂ S	176.621	14.5	251 dec	1.3470 ¹⁵		28.90			0.008				
Benzenethiol	C ₆ H ₆ S	110.177	-14.93	169.1	1.0775 ²⁰		4.26	1.23	1.572	0.26			0.1	
Benzonitrile	C ₇ H ₅ N	103.122	-13.99	191.1	1.0093 ¹⁵	1.267	25.9	4.18	1.602	0.11				
Benzoyl chloride	C ₇ H ₅ ClO	140.567	-0.4	197.2	1.2120 ²⁰		23.0			0.084	72			0.5
Benzyl acetate	C ₉ H ₁₀ O ₂	150.174	-51.3	213	1.0550 ²⁰		5.34	1.22	0.989	0.022	90		460	10
Benzyl alcohol	C ₇ H ₈ O	108.138	-15.4	205.31	1.0419 ²⁴	5.47	11.916	1.71	2.015	0.015	93		436	
Benzylamine	C ₇ H ₉ N	107.153		185	0.9813 ²⁰	1.624	5.18			0.096				
2,2'-Bioxirane	C ₄ H ₆ O ₂	86.090	2.0	144	1.113 ²⁰									

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2-Octanone	$\text{C}_8\text{H}_{16}\text{O}$	128.212	-16	172.5	0.820 ²⁰		9.51	2.7	2.132	0.12	52			
1-Octene	C_8H_{16}	112.213	-101.7	121.29	0.7149 ²⁰	0.447	2.113	≈ 0	2.148	2.30	21		230	
Oxetane	$\text{C}_3\text{H}_6\text{O}$	58.079	-97	47.6	0.8930 ²⁵			1.94						
2-Oxetanone	$\text{C}_3\text{H}_4\text{O}_2$	72.063	-33.4	162	1.1460 ²⁰			4.18	1.694	0.3	74	>2.9%		0.5
Oxirane	$\text{C}_2\text{H}_4\text{O}$	44.052	-112.5	10.6	0.8821 ¹⁰		12.42	1.89	1.998	175	-20	3-100%	429	1
Oxiranemethanol, (\pm)-	$\text{C}_3\text{H}_6\text{O}_2$	74.079	-45	167 dec	1.1143 ²⁵									2
Paraldehyde	$\text{C}_6\text{H}_{10}\text{O}_3$	132.157	12.6	124.3	0.9943 ²⁰	1.079		1.43		1.6	36	>1.3%	238	
Parathion	$\text{C}_{10}\text{H}_{14}\text{NO}_3\text{PS}$	291.261	6.1	375	1.2681 ²⁰									0.01
Pentachloroethane	C_2Cl_5	202.294	-28.78	162.0	1.6796 ²⁰	2.25	3.716	0.92	0.859	0.478				
cis-1,3-Pentadiene	C_5H_8	68.118	-140.8	44.1	0.6910 ²⁰		2.319	0.500		50.6				
trans-1,3-Pentadiene	C_5H_8	68.118	-87.4	42	0.6710 ²⁵			0.585		54.7				
Pentanal	$\text{C}_5\text{H}_{10}\text{O}$	86.132	-91.5	103	0.8095 ²⁰		10.00			4.58	12		222	50
Pentane	C_5H_{12}	72.149	-129.67	36.06	0.6262 ²⁰	0.224	1.8371	≈ 0	2.317	68.3	-40	2-8%	260	600
Pentanedial	$\text{C}_5\text{H}_8\text{O}_2$	100.117	-14	188 dec										0.05
1,5-Pentanediol	$\text{C}_5\text{H}_{12}\text{O}_2$	104.148	-18	239	0.9914 ²⁰		26.2	2.5	3.08	0.001	129		335	
2,4-Pentanedione	$\text{C}_5\text{H}_8\text{O}_2$	100.117	-23	138	0.9721 ²⁵		26.524	2.8	2.08	1.02	34		340	
1-Pentanethiol	$\text{C}_5\text{H}_{12}\text{S}$	104.214	-75.65	126.6	0.850 ²⁰		4.847			1.83	18			
Pentanoic acid	$\text{C}_5\text{H}_{10}\text{O}_2$	102.132	-33.6	186.1	0.9339 ²⁵		2.661	1.61	2.059	0.024	96		400	
1-Pentanol	$\text{C}_5\text{H}_{12}\text{O}$	88.148	-77.6	137.98	0.8144 ²⁰	3.62	15.13	1.7	2.361	0.259	33	1-10%	300	
2-Pentanol	$\text{C}_5\text{H}_{12}\text{O}$	88.148	-73	119.3	0.8094 ²⁰	3.47	13.71	1.66	2.716	0.804	34	1.2-9%	343	
3-Pentanol	$\text{C}_5\text{H}_{12}\text{O}$	88.148	-69	116.25	0.8203 ²⁰	4.15	13.35	1.64	2.719	1.10	41	1.2-9%	435	
2-Pentanone	$\text{C}_5\text{H}_{10}\text{O}$	86.132	-76.8	102.26	0.809 ²⁰	0.470	15.45	2.7	2.137	4.97	7	2-8%	452	200
3-Pentanone	$\text{C}_5\text{H}_{10}\text{O}$	86.132	-39	101.7	0.8098 ²⁵	0.444	17.00	2.82	2.216	4.72	13	>1.6%	450	200
1-Pentene	C_5H_{10}	70.133	-165.12	29.96	0.6405 ²⁰	0.195	2.011	≈ 0.5	2.196	85.0	-18	1.5-8.7%	275	
cis-2-Pentene	C_5H_{10}	70.133	-151.36	36.93	0.6556 ²⁰			≈ 0	2.163	66.0	<-20			
trans-2-Pentene	C_5H_{10}	70.133	-140.21	36.34	0.6431 ²⁵			≈ 0	2.239	67.4	<-20			
Pentyl acetate	$\text{C}_7\text{H}_{14}\text{O}_2$	130.185	-70.8	149.2	0.8756 ²⁰		4.79	1.75	2.005	0.60	16	1-8%	360	50
Pentylamine	$\text{C}_5\text{H}_{13}\text{N}$	87.164	-55	104.3	0.7544 ²⁰	0.702	4.27		2.501	4.00	-1	2.2-22%		
Perchloric acid	ClHO_3	100.459	-112	≈ 90 dec	1.77									
Peroxyacetic acid	$\text{C}_2\text{H}_4\text{O}_3$	76.051	-0.2	110	1.226 ¹⁵					1.93	41			
Phenol	$\text{C}_6\text{H}_6\text{O}$	94.111	40.89	181.87	1.0545 ⁴⁵		12.40	1.224	2.123	0.055	79	1.8-8.6%	715	5
2-Phenoxyethanol	$\text{C}_8\text{H}_{10}\text{O}_2$	138.164	14	245	1.102 ²²					0.001	121			
Phenylhydrazine	$\text{C}_6\text{H}_8\text{N}_2$	108.141	20.6	243.5	1.0986 ²⁰	13.03	7.15		2.007	0.003	88			0.1
1-Phenyl-2-propylamine, (\pm)-	$\text{C}_9\text{H}_{13}\text{N}$	135.206		203	0.9306 ²⁵					0.06	<100			
Phosphinic acid	$\text{H}_3\text{O}_2\text{P}$	65.997	26.5	130	1.49									
Phosphoric acid	$\text{H}_3\text{O}_4\text{P}$	97.995	42.4	407					1.480					0.25
Phosphorothioic trichloride	Cl_3PS	169.398	-36.2	125	1.635		4.94							
Phosphorus(III) bromide	Br_3P	270.686	-41.5	173.2	2.8					0.38				
Phosphorus(III) chloride	Cl_3P	137.332	-93.6	76.1	1.574	0.529	3.498	0.56		16.1				0.2
Phosphoryl chloride	Cl_3OP	153.331	1.18	105.5	1.645		14.1	2.54	0.905	4.97				0.1
α -Pinene	$\text{C}_{10}\text{H}_{16}$	136.234	-64	156.2	0.8539 ²⁵		2.1787			0.64	33		255	
β -Pinene	$\text{C}_{10}\text{H}_{16}$	136.234	-61.5	166	0.860 ²⁵		2.4970			0.61	38		275	
Piperidine	$\text{C}_5\text{H}_{11}\text{N}$	85.148	-11.02	106.22	0.8606 ²⁰	1.573	4.33	1.2	2.113	4.28	16	1-10%		
Propanal	$\text{C}_3\text{H}_6\text{O}$	58.079	-80	48	0.8657 ²⁵	0.321	18.5	2.2	2.362	42.2	-30	2.6-17%	207	20
1,2-Propanediol	$\text{C}_3\text{H}_8\text{O}_2$	76.095	-60	187.6	1.0361 ²⁰	40.4	27.5	2.2	2.507	0.02	99	3-13%	371	
1,3-Propanediol	$\text{C}_3\text{H}_8\text{O}_2$	76.095	-27.7	214.4	1.0538 ²⁰		35.1	2.5		0.007			400	
Propanenitrile	$\text{C}_3\text{H}_5\text{N}$	55.079	-92.78	97.14	0.7818 ²⁰	0.294	29.7	4.05	2.166	6.14	2	3-14%	512	
Propanoic acid	$\text{C}_3\text{H}_6\text{O}_2$	74.079	-20.5	141.15	0.9882 ²⁵	1.030	3.44	1.75	2.063	0.553	52	2.9-12.1%	465	10
Propanoic anhydride	$\text{C}_6\text{H}_{10}\text{O}_3$	130.141	-45	170	1.0110 ²⁰		18.30		1.806	0.45	63	1.3-9.5%	285	
1-Propanol	$\text{C}_3\text{H}_8\text{O}$	60.095	-124.39	97.2	0.7997 ²⁵	1.945	20.8	1.55	2.395	2.76	23	2-14%	412	200
2-Propanol	$\text{C}_3\text{H}_8\text{O}$	60.095	-87.9	82.3	0.7809 ²⁵	2.04	20.18	1.56	2.604	6.02	12	2-13%	399	200
Propargyl alcohol	$\text{C}_3\text{H}_4\text{O}$	56.063	-51.8	113.6	0.9478 ²⁰		20.8	1.13			36			1
Propyl acetate	$\text{C}_5\text{H}_{10}\text{O}_2$	102.132	-93	101.54	0.8878 ²⁰	0.544	5.62	1.8	1.921	4.49	13	2-8%	450	200
Propylamine	$\text{C}_3\text{H}_7\text{N}$	59.110	-84.75	47.22	0.7173 ²⁰	0.376	5.08	1.17	2.776	42.1	-37	2-10%	318	
Propylbenzene	C_9H_{12}	120.191	-99.6	159.24	0.8593 ²⁵		2.370	≈ 0	1.786	0.45	30	1-6%	450	
Propyl butanoate	$\text{C}_7\text{H}_{14}\text{O}_2$	130.185	-95.2	143.0	0.8730 ²⁰		4.3			0.618	37			
Propylene carbonate	$\text{C}_4\text{H}_6\text{O}_3$	102.089	-48.8	242	1.2047 ²⁰		66.14	4.9	2.141	0.05	135			
Propyl formate	$\text{C}_4\text{H}_8\text{O}_2$	88.106	-92.9	80.9	0.9073 ²⁰	0.485	6.92	1.89	1.945	10.9	-3		455	
Propyl propanoate	$\text{C}_6\text{H}_{12}\text{O}_2$	116.158	-75.9	122.5	0.8809 ²⁰		5.249			1.88	79			
Pyridine	$\text{C}_5\text{H}_5\text{N}$	79.101	-41.70	115.23	0.9819 ²⁰	0.879	13.260	2.21	1.678	2.76	20	2-12%	482	1
Pyrrrole	$\text{C}_4\text{H}_5\text{N}$	67.090	-23.39	129.79	0.9698 ²⁰	1.225	8.00	1.74	1.903	1.10	39			
Pyrrrolidine	$\text{C}_4\text{H}_9\text{N}$	71.121	-57.79	86.56	0.8586 ²⁰	0.704	8.30	1.6	2.202	8.40	3			
2-Pyrrrolidone	$\text{C}_4\text{H}_7\text{NO}$	85.105	25	251	1.120 ²⁰		28.18	3.5	1.99		129			
Quinoline	$\text{C}_8\text{H}_7\text{N}$	129.159	-14.78	237.16	1.0977 ¹⁵	3.34	9.16	2.29	1.51	0.011			480	
Safrole	$\text{C}_{10}\text{H}_{10}\text{O}_2$	162.185	11.2	234.5	1.1000 ²⁰					0.01	100			
Salicylaldehyde	$\text{C}_7\text{H}_6\text{O}_2$	122.122	-7	197	1.1674 ²⁰		18.35	2.86	1.818	0.075	78			

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Selenium chloride	Cl_2Se_2	228.83	-85	130 dec	2.774									
Selenium oxychloride	Cl_2OSe	165.86	8.5	177	2.44		46.2			0.02				
Selenium oxyfluoride	F_2OSe	132.96	15	125	2.8					0.56				
Styrene	C_8H_8	104.150	-30.65	145	0.9016 ²⁵	0.695	2.4737	0.123	1.747	0.81	31	1-7%	490	20
Sulfolane	$\text{C}_4\text{H}_8\text{O}_2\text{S}$	120.171	27.6	287.3	1.2723 ¹⁸		43.26	4.8	1.498	<0.01	177			
Sulfur chloride	Cl_2S_2	135.037	-77	137	1.69		4.79			1.27				1
Sulfur dichloride	Cl_2S	102.971	-122	59.6	1.62		2.915	0.36		17.9				
Sulfuric acid	$\text{H}_2\text{O}_4\text{S}$	98.080	10.31	337	1.8				1.416					0.05
Sulfuryl chloride	$\text{Cl}_2\text{O}_2\text{S}$	134.970	-51	69.4	1.680		9.1	1.81	0.993	18.7				
α -Terpinene	$\text{C}_{10}\text{H}_{16}$	136.234		174	0.8375 ¹⁹		2.4526							
1,1,2,2-Tetrabromoethane	$\text{C}_2\text{H}_2\text{Br}_4$	345.653	0	243.5	2.9655 ²⁰		6.72	1.38	0.479	0.003			335	1
Tetrabromosilane	Br_4Si	347.702	5.39	154	2.8			0						
1,1,2,2-Tetrachloro-1,2-difluoroethane	$\text{C}_2\text{Cl}_4\text{F}_2$	203.830	24.8	92.8	1.5951 ⁵⁰		2.52		0.852	7.51				500
1,1,1,2-Tetrachloroethane	C_2HCl_4	167.849	-70.2	130.2	1.5406 ²⁰	1.437			0.92	1.6	47	5-12%		
1,1,2,2-Tetrachloroethane	$\text{C}_2\text{H}_2\text{Cl}_4$	167.849	-42.4	145.2	1.5953 ²⁰		8.50	1.32	0.967	0.622	62	20-54%		1
Tetrachloroethene	C_2Cl_4	165.833	-22.3	121.3	1.6230 ²⁰	0.844	2.268	0	0.865	2.42	45			25
Tetrachloromethane	CCl_4	153.823	-22.62	76.8	1.5940 ²⁰	0.908	2.2379	0	0.850	15.2				5
Tetrachlorosilane	Cl_4Si	169.897	-68.74	57.65	1.5	99.4		0	0.855	31.3				
Tetradecane	$\text{C}_{14}\text{H}_{30}$	198.388	5.82	253.58	0.7596 ²⁰	2.13	2.0343	≈ 0		0.002	112	>0.5%	200	
Tetraethylene glycol	$\text{C}_8\text{H}_{18}\text{O}_5$	194.226	-6.2	328	1.1285 ¹⁵		20.44		2.208	0.000001	182			
Tetrafluoroboric acid	BF_4H	87.813		130 dec	-1.8									
Tetrahydrofuran	$\text{C}_4\text{H}_8\text{O}$	72.106	-108.44	65	0.8833 ²⁵	0.456	7.52	1.75	1.720	21.6	-14	2-12%	321	200
Tetrahydrofurfuryl alcohol	$\text{C}_5\text{H}_{10}\text{O}_2$	102.132	<-80	178	1.0524 ²⁰		13.48	2.1	1.774	0.100	75	1.5-9.7%	282	
1,2,3,4-Tetrahydronaphthalene	$\text{C}_{10}\text{H}_{12}$	132.202	-35.7	207.6	0.9645 ²⁵	2.14	2.771	≈ 0	1.645	0.05	71	1-5%	385	
Tetrahydropyran	$\text{C}_6\text{H}_{10}\text{O}$	86.132	-49.1	88	0.8814 ²⁰		5.66	1.74	1.82	9.54	-20			
Tetrahydrothiophene	$\text{C}_4\text{H}_8\text{S}$	88.172	-96.2	121.1	0.9987 ²⁰	0.973		1.90		2.45				
Tetramethylsilane	$\text{C}_4\text{H}_{12}\text{Si}$	88.224	-99.06	26.6	0.648 ¹⁹		1.921	0	2.313	94.2				
Tetramethylurea	$\text{C}_4\text{H}_{12}\text{N}_2\text{O}$	116.161	-0.6	176.5	0.9687 ²⁰		23.10	3.5		0.138	77			
Tetranitromethane	CN_4O_8	196.033	13.8	126.1	1.6380 ²⁰		2.317	0		1.13				0.005
Thionyl bromide	Br_2OS	207.873	-50	140			9.06			0.84				
Thionyl chloride	Cl_2OS	118.970	-101	75.6	1.631		8.675	1.45	1.017	16.0				1
Thiophene	$\text{C}_4\text{H}_4\text{S}$	84.140	-38.21	84.0	1.0649 ²⁰		2.739	0.55	1.471	10.6	-1			
Tin(IV) chloride	Cl_4Sn	260.521	-34.07	114.15	2.234			0	0.634					
Titanium(IV) chloride	Cl_4Ti	189.678	-24.12	136.45	1.73				0.766					
Toluene	C_7H_8	92.139	-94.95	110.63	0.8668 ²⁰	0.560	2.379	0.37	1.707	3.79	4	1-7%	480	50
Toluene-2,4-diisocyanate	$\text{C}_9\text{H}_6\text{N}_2\text{O}_2$	174.156	20.5	251	1.2244 ²⁰		8.433		1.653	0.003	127	0.9-9.5%		0.005
Tribromomethane	CHBr_3	252.731	8.69	149.1	2.8788 ²⁵	1.857	4.404	0.99	0.517	0.726	83			0.5
Tributylamine	$\text{C}_{12}\text{H}_{27}\text{N}$	185.349	-70	216.5	0.7770 ²⁰		2.340	0.8		0.01	63	1-5%		
Tributyl borate	$\text{C}_{12}\text{H}_{27}\text{BO}_3$	230.151	<-70	234	0.8567 ²⁰		2.23	0.77			93			
Tributyrin	$\text{C}_{15}\text{H}_{26}\text{O}_6$	302.363	-75	307.5	1.0350 ²⁰		5.72		1.837		180	>0.5%	407	
Trichloroacetaldehyde	$\text{C}_2\text{HCl}_3\text{O}$	147.387	-57.5	97.8	1.512 ²⁰		6.8		1.025	6.66				
1,2,4-Trichlorobenzene	$\text{C}_6\text{H}_3\text{Cl}_3$	181.447	16.92	213.5	1.459 ²⁵					0.057	105	2.5-6.6%	571	5
1,1,1-Trichloroethane	$\text{C}_2\text{H}_2\text{Cl}_3$	133.404	-30.01	74.09	1.3390 ²⁰	0.793	7.243	1.76	1.082	16.5	-1	8-13%	500	350
1,1,2-Trichloroethane	$\text{C}_2\text{H}_3\text{Cl}_3$	133.404	-36.3	113.8	1.4397 ²⁰		7.1937	1.4	1.131	3.1	32	6-28%	460	10
Trichloroethene	C_2HCl_3	131.388	-84.7	87.21	1.4642 ²⁰	0.545	3.390	0.8	0.947	9.91	32	8-11%	420	50
Trichloroethylsilane	$\text{C}_2\text{H}_5\text{Cl}_2\text{Si}$	163.506	-105.6	100.5	1.2373 ²⁰			2.04		6.29	22			
Trichlorofluoromethane	CCl_2F	137.368	-110.44	23.7	1.4879 ²⁰	0.421	3.00	0.46	0.885	106				1000
Trichloromethane	CHCl_3	119.378	-63.41	61.17	1.4788 ²⁵	0.537	4.8069	1.04	0.957	26.2				10
(Trichloromethyl)benzene	$\text{C}_7\text{H}_5\text{Cl}_3$	195.474	-4.42	221	1.3723 ²⁰		6.9	2.03		0.35	127		211	0.1
Trichloromethylsilane	$\text{CH}_3\text{Cl}_2\text{Si}$	149.480	-90	65.6	1.273 ²⁰			1.91	1.091	22.5	-9	7.6->20%	>404	
Trichloronitromethane	CCl_3NO_2	164.376	-64	112	1.6558 ²⁰		7.319			3.18				0.1
1,2,3-Trichloropropane	$\text{C}_3\text{H}_5\text{Cl}_3$	147.431	-14.7	157	1.3889 ²⁰		7.5		1.245	0.492	71	3.2-12.6%		10
Trichlorosilane	Cl_3HSi	135.452	-128.2	33	1.331	0.326		0.86			-50		104	
1,1,2-Trichloro-1,2,2-trifluoroethane	$\text{C}_2\text{Cl}_3\text{F}_3$	187.375	-36.22	47.7	1.5635 ²⁵	0.656	2.41		0.908	44.8				1000
Tri- <i>o</i> -cresyl phosphate	$\text{C}_{21}\text{H}_{21}\text{O}_4\text{P}$	368.363	11	410	1.1955 ²⁰		6.7	2.87	1.57	0.0000002	225		385	0.01
Tridecane	$\text{C}_{13}\text{H}_{28}$	184.361	-5.4	235.47	0.7564 ²⁰	1.724	2.0213	≈ 0	2.206	0.005	79			
1-Tridecene	$\text{C}_{13}\text{H}_{26}$	182.345	-13	232.8	0.7658 ²⁰	1.50	2.139	≈ 0	2.149	0.0047	79			
Triethanolamine	$\text{C}_6\text{H}_{15}\text{NO}_3$	149.188	20.5	335.4	1.1242 ²⁰	609	29.36	3.6	2.61	<0.01	179	1-10%		0.8
Triethylamine	$\text{C}_6\text{H}_{15}\text{N}$	101.190	-114.7	89	0.7275 ²⁰	0.347	2.418	0.66	2.173	7.70	-7	1-8%	249	1
Triethylene glycol	$\text{C}_8\text{H}_{18}\text{O}_4$	150.173	-7	285	1.1274 ¹⁵		23.69		2.18	0.0002	177	1-9%	371	
Triethylene glycol dimethyl ether	$\text{C}_8\text{H}_{18}\text{O}_4$	178.227	-45	216	0.986 ²⁰		7.62				111			
Triethyl phosphate	$\text{C}_6\text{H}_{15}\text{O}_4\text{P}$	182.154	-56.4	215.5	1.0695 ²⁰		13.20	3.1			115		454	
Trifluoroacetic acid	$\text{C}_2\text{HF}_3\text{O}_2$	114.023	-15.2	73	1.5351 ²⁵	0.808	8.42	2.28		15.1				
(Trifluoromethyl)benzene	C_7HF_3	146.110	-28.95	102.1	1.1884 ²⁰		9.22	2.86	1.289	5.14	12			

Name	Mol. form.	M_r	$t_m/^\circ\text{C}$	$t_b/^\circ\text{C}$	$\rho/\text{g mL}^{-1}$	$\eta/\text{mPa s}$	ϵ	μ/D	$c_p/\text{J g}^{-1}\text{K}^{-1}$	vp/kPa	FP/ $^\circ\text{C}$	Fl. lim.	IT/ $^\circ\text{C}$	TLV/ppm
1,2,3-Trimethylbenzene	C_9H_{12}	120.191	-25.4	176.12	0.8944 ²⁰		2.656	≈ 0	1.800	0.20	44	0.8-6.6%	470	25
1,2,4-Trimethylbenzene	C_9H_{12}	120.191	-43.77	169.38	0.8758 ²⁰		2.377	≈ 0	1.789	0.30	44	1-6%	500	25
1,3,5-Trimethylbenzene	C_9H_{12}	120.191	-44.72	164.74	0.8615 ²⁵		2.279	0	1.741	0.33	50	1-5%	559	25
Trimethyl borate	$\text{C}_3\text{H}_9\text{BO}_3$	103.912	-29.3	67.5	0.915 ²⁵		2.2762		1.828	17.2	-8			
Trimethylchlorosilane	$\text{C}_3\text{H}_9\text{ClSi}$	108.642	-40	60	0.856 ²⁵					30.7	-28		395	
2,2,4-Trimethylpentane	C_8H_{18}	114.229	-107.3	99.22	0.6878 ²⁵		1.943	≈ 0	2.093	6.50	-12		418	300
2,3,3-Trimethylpentane	C_8H_{18}	114.229	-100.9	114.8	0.7262 ²⁰		1.9780	≈ 0	2.150	3.60	<21		425	300
Trimethyl phosphate	$\text{C}_3\text{H}_9\text{O}_4\text{P}$	140.074	-46	197.2	1.2144 ²⁰		20.6	3.2		0.11	107			
2,4,6-Trimethylpyridine	$\text{C}_8\text{H}_{11}\text{N}$	121.180	-46	170.6	0.9166 ²²		7.807	2.05		4.1				
Trinitroglycerol	$\text{C}_3\text{H}_5\text{N}_3\text{O}_9$	227.087	13.5	exp 218	1.5931 ²⁰		19.25			0.00005			270	0.05
Undecane	$\text{C}_{11}\text{H}_{24}$	156.309	-25.5	195.9	0.7402 ²⁰	1.098	1.9972	≈ 0	2.207	0.05	69			
Vanadium(IV) chloride	Cl_4V	192.753	-25.7	148	1.816		3.05							
Vanadyl trichloride	Cl_3OV	173.299	-79	127	1.829		3.4							
Vinyl acetate	$\text{C}_4\text{H}_6\text{O}_2$	86.090	-93.2	72.8	0.9256 ²⁵			1.79	1.969	15.4	-8	2.6-13.4%	402	10
4-Vinylcyclohexene	C_8H_{12}	108.181	-108.9	128	0.8299 ²⁰					1.87	16		269	0.1
Water	H_2O	18.015	0.00	100.0	0.9970	0.890	80.100	1.8546	4.180	3.17				
<i>o</i> -Xylene	C_8H_{10}	106.165	-25.2	144.5	0.8802 ¹⁰	0.760	2.562	0.64	1.753	0.88	32	1-7%	463	100
<i>m</i> -Xylene	C_8H_{10}	106.165	-47.8	139.12	0.8596 ²⁵	0.581	2.359	≈ 0	1.724	1.13	27	1-7%	527	100
<i>p</i> -Xylene	C_8H_{10}	106.165	13.25	138.37	0.8566 ²⁵	0.603	2.2735	0	1.710	1.19	27	1-7%	528	100
2,4-Xylenol	$\text{C}_8\text{H}_{10}\text{O}$	122.164	24.5	210.98	0.9650 ²⁰		5.060	1.4		0.022				