

Sound Speed and Kinematic Viscosity Table

Substance	Form Index	Temp. (°C)	Sound Speed (m/s)	Kinematic Viscosity (m ² /s×10 ⁻⁶)
Acetic acid	CH ₃ COOH	20	1159	
Acetic anhydride	(CH ₃ CO) ₂ O	20	1180	0.769
Acetic acid, anhydride	(CH ₃ CO) ₂ O	20	1180	0.769
Acetonitrile	C ₂ H ₃ N	25	1290	0.441
Ethyl acetate	C ₄ H ₈ O ₂	25	1085	0.467
Methyl acetate	C ₃ H ₆ O ₂	25	1211	0.407
Acetone	C ₃ H ₆ O	20	1190	0.407
Acetonitrile	C ₂ H ₃ N	25	1290	0.441
Acetylacetone	C ₆ H ₁₀ O ₂	25	1399	
Acetylen dichloride	C ₂ H ₂ Cl ₂	25	1015	0.4
Acetylene tetrabromide	C ₂ H ₂ Br ₄	25	1027	
Acetylene tetrachloride	C ₂ H ₂ Cl ₄	25	1147	1.156(15°C)
Ethyl alcohol	C ₂ H ₆ O	25	1207	1.396
Alkazene-13	C ₁₅ H ₂₄	25	1317	
Alkazene-25	C ₁₀ H ₁₂ Cl ₂	25	1307	
2-amino-ethanol	C ₂ H ₇ NO	25	1724	
2-aminotolidine	C ₇ H ₉ N	25	1618	4.394(20°C)
4-aminotolidine	C ₇ H ₉ N	25	1480	1.863(50°C)
Ammonia	NH ₃	-33	1729	0.292
t-amyl alcohol	C ₅ H ₁₂ O	25	1204	4.374
Aminobenzene	C ₆ H ₅ NO ₂	25	1639	3.63
Aniline	C ₆ H ₅ NO ₂	20	1659	1.762
Azine	C ₆ H ₅ N	25	1415	0.992
Benzene	C ₆ H ₆	25	1306	0.711
Benzol	C ₆ H ₆	25	1306	0.711
Bromine	Br ₂	25	889	0.323
Bromobenzene	C ₆ H ₅ Br	25	1170	0.693
1-bromo-butane	C ₄ H ₉ Br	20	1019	0.49(15°C)
Bromoethane	C ₂ H ₅ Br	20	900	0.275
Bromoform	CHBr ₃	20	918	0.654
n-butane	C ₄ H ₁₀	-5	1085	
2-butanol	C ₄ H ₁₀ O	25	1240	3.239
sec-butylalcohol	C ₄ H ₁₀ O	25	1240	3.239
n-butyl bromide	C ₄ H ₉ Br	20	1019	0.49(15°C)
n-butyl chloride	C ₄ H ₉ Cl	25	1140	0.529
tert butyl chloride	C ₄ H ₉ Cl	25	984	0.646
Butyl oleate	C ₂₂ H ₄₂ O ₂	25	1404	0.529
2,3 butylene glycol	C ₄ H ₁₀ O ₂	25	1484	
Carbinol	CH ₄ O	25	1076	0.695
Carbitol	C ₆ H ₁₄ O ₃	25	1458	
Carbon dioxide	CO ₂	-37	839	0.137
Carbon disulphide	CS ₂	20	1158	0.29
Carbon tetrachloride	CCl ₄	20	938	0.608
Cetane	C ₁₆ H ₃₄	20	1338	4.32
Chlorobenezene	C ₆ H ₅ Cl	20	1289	0.722(25°C)
1-Chlorobutane	C ₄ H ₉ Cl	25	1140	0.529
Chloroform	CHCl ₃	20	931	0.383

1-chloropropane	C3H7Cl	25	1058	0.378
Cinnamaldehyde	C9H8O	25	1554	
Cinnamic aldehyde	C9H8O	25	1554	
Colamine	C2H7NO	25	1724	
o-cresol	C7H8O	20	1541	4.29(40°C)
m-cresol	C7H8O	20	1500	5.979(40°C)
Cyanomethane	C2H3N	25	1290	0.441
Cyclohexane	C6H12	20	1284	1.31(17°C)
Cyclohexanol	C6H12O	25	1454	0.071(17°C)
Cyclohexanone	C6H10O	25	1423	
Decane	C10H22	25	1252	1.26(20°C)
1-decene	C10H20	25	1235	
n-decylene	C10H20	25	1235	
Diacetyl	C4H6O2	25	1236	
Diamylamine	C10H23N	25	1256	
1, 2-dibromo-ethane	C2H4Br2	25	995	0.79(20°C)
trans-1, 2- dibromoethene	C2H2Br2	25	935	
Dibutyl phthalate	C6H22O4	25	1408	
Dichloro-t-butyl alcohol	C4H8Cl2O	25	1304	
2, 3-dichlorodixane	C2H6Cl2O2	25	1391	
dichlorodi- fluoromethane(Freon12)	CCl2F2	25	774.1	
1, 2-dichloro ethane	C2H4Cl2	25	1193	0.61
cis1, 2-dichloro- ethane	C2H2Cl2	25	1061	
trans1, 2-dichloro- ethane	C2H2Cl2	25	1010	
Dichlorofluoro- methane(Freon21)	CHCl2F	0	891	
1-2-dichlorohexa- fluorocyclobutane	C4Cl2F6	25	669	
1-3-dichloro- isobutane	C4H8Cl2	25	1220	
Dichloro methane	CH2Cl2	25	1070	0.31
1, 1-dichloro-1, 2, 2, 2-tetra fluoroethane	CClF2-CClF2	25	665.3	
Diethyl ether	C4H10O	25	985	0.311
Diethylene glycol	C4H10O3	25	1586	
Diethylene glycol, monoethyl ether	C6H14O3	25	1458	
Diethylenimide oxide	C4H9NO	25	1442	
1, 2-bis (difluoramino) butane	C4H8(NF2)2	25	1000	
1, 2-bis (difluoramino)- 2-methylpropane	C4H9(NF2)2	25	900	
1, 2-bis(difluoramino) propane	C3H6(NF2)2	25	960	
2, 2-bis(difluoramino) propane	C3H6(NF2)2	25	890	
2, 2-dihydroxy- dilethyrtether	C4H10O3	25	1586	
Dihydroxyethane	C2H6O2	25	1658	
1, 3-dimethyl- benzene	C8H10	20	1343	0.749(15°C)
1, 2-dimethyl- benzene	C8H10	25	1331.5	0.903(20°C)
1, 4-dimethyl- benzene	C8H10	20	1334	0.662
2,2-dimethyl- butane	C6H14	25	1079	
Dimethyl ketone	C3H6O	25	1174	0.399
Dimethyl pentane	C7H16	25	1063	
Dimethyl phthalate	C8H10O4	25	1463	
Diiodo-methane	CH2I2	25	980	
Dioxane	C4H8O2	25	1376	
Dodecane(23)	C12H26	25	1279	1.8
1, 2-ethanediol	C2H6O2	25	1658	

Ethanenitrile	C2H3N	25	1290	0.441
Ethanoic anhydride	(CH3CO)2O	25	1180	0.769
Ethanol	C2H6O	25	1207	1.39
Ethanol amide	C2H7NO	25	1724	
Ethoxyethane	C4H10O	25	985	0.311
Ethyl acetate	C4H8O2	20	1164	0.499
Ethyl alcohol	C2H6O	25	1207	1.396
Ethyl benzene	C8H10	20	1338	0.797(17°C)
Ethyl Bromide	C2H5Br	20	900	0.275
Ethyl iodide	C2H5I	20	876	0.29
Ether	C4H10O	20	1006	0.336
Ethyl ether	C4H10O	25	985	0.311
Ethylene bromide	C2H4Br2	25	995	0.79
Ethylene chloride	C2H4Cl2	25	1193	0.61
Ethylene glycol	C2H6O2	20	1666	21.112
50% glycol / 50% H2O		25	1578	
d-fenochone	C10H16O	25	1320	0.22
d-2-enochone	C10H16O	25	1320	0.22
Fluoro-benzene(46)	C6H5F	25	1189	0.584
Formaldehyde, methylester	C2H4O2	25	1127	
Formamide	CH3NO	25	1622	2.91
Formic acid, amide	CH3NO	25	1622	2.91
Freon	R12	25	774.2	
Furfural	C5H4O2	25	1444	
Furfuryl alcohol	C5H6O2	25	1450	
Fural	C5H4O2	25	1444	
2-furaldehyde	C5H4O2	25	1444	
2-furancarboxaldehyde	C5H4O2	25	1444	
2-furyl-methanol	C5H6O2	25	1450	
Gallium	Ga	30	2870	
Glycerin	C3H8O3	20	1923	1188.5
Glycerol	C3H8O3	25	1904	757.1
Glycol	C2H6O2	25	1658	
Heptane	C7H16	25	1131	0.598(20°C)
n-heptane	C7H16	25	1180	
Hexachloro- cyclopentadiene	C5Cl6	25	1150	
Hexadecane	C16H34	25	1338	4.32(20°C)
Hexalin	C16H12	25	1454	70.69(17°C)
Hexane	C6H14	25	1112	0.446
n-hexane	C6H14	20	1083	0.489
2, 5-hexanedione	C6H10O2	25	1399	
n-hexanol	C6H14O	25	1300	
Hexahydrobenzene	C6H12	25	1248	1.31(17°C)
Hexahydrophenol	C6H12O	25	1454	
Hexamethylene	C6H12	25	1248	1.31
2-hydroxy-toluene	C7H8O	20	1541	4.29(40°C)
3-hydroxy-toluene	C7H8O	20	1500	5.979(40°C)
Iodo-benzene	C6H5I	20	1114	0.954
Iodo-ethane	C2H5I	20	876	0.29
Iodo-methane	CH3I	25	978	0.211

Isobutyl	acetate	C6H12O	27	1180
Isobutanol		C4H10O	25	1212
Iso-butane		25	1219.8	0.34
Isopentane		C5H12	25	980
Isopropanol(46)		C3H8O	20	1170
Isopropyl alcohol		C3H8O	20	1170
Kerosene			25	1324
Ketohexamethylene		C6H10O	25	1423
Mercury		Hg	20	1451
Mesityloxiide		C6H16O	25	1310
Methanol		CH4O	25	1076
Methyl acetate		C3H6O2	20	1181
o-methylaniline		C7H9N	25	1618
4-methylaniline		C7H9N	25	1480
Methyl alcohol		CH4O	25	1076
Methyl benzene		C7H8	20	1328
2-methyl-butane		C5H12	25	980
Methyl carbinol		C2H6O	25	1207
Methyl-chloroform		C2H3Cl3	25	985
Methyl-cyanide		C2H3N	25	1290
3-methyl cyclohexanol		C7H14O	25	1400
Methylene chloride		CH2Cl2	25	1070
Methylene iodide		CH2I2	25	980
Methyl formate		C2H4O2	25	1127
Methyl iodide		CH3I	25	978
α -methyl naphthalene		C11H10	25	1510
2-methylphenol		C7H8O	20	1541
3-methylphenol		C7H8O	20	1500
Milk, homogenized			25	1548
Morpholine		C4H9NO	25	1442
Naphtha		25	1225	
Nitrobenzene		C6H5NO2	20	1473
Nitromethane		CH3NO2	25	1300
Nonane		C9H20	25	1207
1-nonene		C9H18	25	1207
Octane		C8H18	25	1172
n-octane		C8H18	20	1192
1-octene		C8H16	25	1175.5
Oil of camphor Sassafrassy			25	1390
Oil, car(SAE20a.30)			25	870
Oil, castor		C11H10O10	25	1477
Oil, diesel			25	1250
Oil, fuel AA gravity			25	1485
Oil(Lubricating X200)			25	1530
Oil(olive)			25	1431
Oil(peanut)			25	1458
Oil(sperm)			25	1440
Oil, 6			22	1509
2, 2-oxydiethanol		C4H10O3	25	1586
Pentachloroethane		C2HCl5	25	1082

Pentalin	C2HCl5	25	1082	
Pentane	C5H12	25	1020	0.363
n-pentane	C5H12	20	1032	0.366
Perchlorocyclo- pentadiene	C5Cl6	25	1150	
Perchloroethylene	C2Cl4	25	1036	
Perchloro-1-hepten	C7F14	25	583	
Perfluoro-n-hexane	C6F14	25	508	
Phene	C6H6	25	1306	0.711
β-phenyl acrolein	C9H8O	25	1554	
Phenyl amine	C6H5NO2	25	1639	3.63
Phenyl bromide	C6H5Br	20	1170	0.693
Phenyl chloride	C6H5Cl	25	1273	0.722
Phenyl iodide	C6H5I	20	1114	0.954(15°C)
Phenyl methane	C7H8	20	1328	0.644
3-Phenyl propenal		C9H8O	25	1554
Phthalardione	C8H4O3	152	1125	
Pimelic ketone		C6H10O	25	1423
Plexiglas, lucite, acrylic		25	2651	
Refrigerant11	CCl3F	0	828.3	
Propane	C3H8	-45	1003	
1, 2, 3-propanetriol	C3H8O3	25	1904	0.757×10-3
1-propanol	C3H8O	20	1222	
2-propanol	C3H8O	20	1170	2.718
2-propanone	C3H6O	25	1174	0.399
Propene	C3H6	-13	963	
n-propyl acetate	C5H10O2	2	1280	
n-propyl alcohol	C3H8O	20	1225	2.549
Propylchloride	C3H7Cl	25	1058	0.378
Propylene	C3H6	-13	963	
Pyridine	C6H5N	25	1415	0.992(20°C)
Refrigerant 11	CCl3F	0	828.3	
Refrigerant 12	CCl2F2	-40	774.1	
Refrigerant 21	CHCl2F	0	891	
Refrigerant 22	CHClF2	50	893.9	
Refrigerant 113	CCl2F-CClF2	0	783.7	
Refrigerant 114	CClF2-CClF2	-10	665.3	
Refrigerant 115	C2ClF5	-50	656.4	
Refrigerant C318	C4F8	-10	574	
Silicone(30cp)		25	990	30
Solvesso#3		25	1370	
Spirit of wine	C2H6O	25	1207	1.396
Sulfuric Acid	H2SO4	25	1257.6	11.16
1, 1, 2, 2-tetrabromo- ethane	C2H2Br4	25	1027	
1, 1, 2, 2-tetrachloro- ethane	C2H2Cl4	25	1147	1.156(15°C)
Tetrachloroethane	C2H2Cl4	20	1170	1.19
Tetrachloroethene	C2Cl4	25	1036	
Tetrachloro-Methane	CCl4	25	926	0.607
Tetradecane	C14H30	20	1331	2.86
Tetraethylene	glycol	C8H18O5	25	1586
Tetrahydro-1, 4-isoxazine	C4H9NO	25	1442	

Toluene	C7H8	20	1328	0.644
o-toluidine	C7H9N	25	1618	4.394(20°C)
p-toluidine	C7H9N	25	1480	1.863(50°C)
Toluol	C7H8	25	1308	0.58
Tribromomethane	CHBr3	25	918	0.654
1, 1, 1-trichloro- ethane	C2H3Cl3	25	985	0.902(20°C)
Trichloro-ethene	C2HCl3	25	1028	
Trichloro- fluoromethane (Freon11)	CCl3F	0	828.3	
Trichloro-methane	CHCl3	25	979	0.55
1, 1,2-trichloro- 1, 2-trifluoro ethane	CCl2F-CClF2	0	783.7	
Triethylamine	C6H15N	25	1123	
Triethylene glycol	C6H14O4	25	1608	
1, 1, 1-trifluoro-2-chloro-2-bromoethane	C2HClBrF3	25	693	
1, 2, 2-trifluorotrichlo- Ethane (Freon113)	CCl2F-CClF2	0	783.7	
d-1,3,3- trimethylnorcamphor	C10H16O	25	1320	0.22
Trinitrotoluene	C7H5(NO2)3	81	1610	
Turpentine		25	1255	1.4
Unisis 800		25	1346	
Water, distilled	H2O	20	1482	1
Water, heavy	D2O	20	1388	1.129
Water, sea		20	1520	1
Wood alcohol	CH4O	25	1076	0.695
m-xylene	C8H10	20	1343	0.749(15°C)
o-xylene	C8H10	25	1331.5	0.903(20°C)
p-xylene	C8H10	20	1334	0.662
Xylene hexafluoride	C8H4F6	25	879	0.613