

APPLICATION NOTE

Fluid Sound Speed Table

Substance	Chemical Formula	Sound Speed (m/s)	Sound Speed (ft/s)
Acetone	$(CH_3CO)_2O$	0.700	1211
Acrylonitrile	C_2H_3N	0.901	1174
Acrylonitrile butadiene copolymer	$C_4H_8O_2$	0.934	1290
Acrylonitrile styrene copolymer	$C_3H_6O_2$	0.791	1399
Acrylonitrile styrene copolymer (33)	C_3H_6O	0.783	1015
Acrylonitrile styrene copolymer (methyl ester)	C_2H_3N	0.729	1027
Acrylonitrile styrene copolymer (methyl ester)	$C_6H_{10}O_2$	1.26	1147
Acrylonitrile styrene copolymer (methyl ester)	$C_2H_2Cl_2$	2.966	1211
Acrylonitrile styrene copolymer (methyl ester)	$C_2H_2Br_4$	1.595	1399
Acrylonitrile styrene copolymer (methyl ester)	$C_2H_2Cl_4$	0.789	1015
Acrylonitrile styrene copolymer (methyl ester)	C_2H_6O	0.86	1027
Acrylonitrile styrene copolymer (methyl ester)	$C_{15}H_{24}$	1.20	1147
Acrylonitrile styrene copolymer (methyl ester)	$C_{10}H_{12}Cl_2$	1.018	1211
Acrylonitrile styrene copolymer (methyl ester)	C_2H_7NO	0.999 (20°C)	1399
Acrylonitrile styrene copolymer (methyl ester)		0.999 (45°C)	1015



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Through measurement comes control

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1: Fluid Sound Speeds at 25 deg C

Substance	Form Index	Specific Gravity	Sound Speed	$\Delta v/^\circ\text{C} - \text{m/s}/^\circ\text{C}$
Acetic anhydride (22)	$(\text{CH}_3\text{CO})_2\text{O}$	1.082 (20°C)	1180	2.5
Acetic acid, anhydride (22)	$(\text{CH}_3\text{CO})_2\text{O}$	1.082 (20°C)	1180	2.5
Acetic acid, nitrile	$\text{C}_2\text{H}_3\text{N}$	0.783	1290	4.1
Acetic acid, ethyl ester (33)	$\text{C}_4\text{H}_8\text{O}_2$	0.901	1085	4.4
Acetic acid, methyl ester	$\text{C}_3\text{H}_6\text{O}_2$	0.934	1211	
Acetone	$\text{C}_3\text{H}_6\text{O}$	0.791	1174	4.5
Acetonitrile	$\text{C}_2\text{H}_3\text{N}$	0.783	1290	4.1
Acetylacetone	$\text{C}_6\text{H}_{10}\text{O}_2$	0.729	1399	3.6
Acetylene dichloride	$\text{C}_2\text{H}_2\text{Cl}_2$	1.26	1015	3.8
Acetylene tetrabromide (47)	$\text{C}_2\text{H}_2\text{Br}_4$	2.966	1027	
Acetylene tetrachloride (47)	$\text{C}_2\text{H}_2\text{Cl}_4$	1.595	1147	
Alcohol	$\text{C}_2\text{H}_6\text{O}$	0.789	1207	4.0
Alkazene-13	$\text{C}_{15}\text{H}_{24}$	0.86	1317	3.9
Alkazene-25	$\text{C}_{10}\text{H}_{12}\text{Cl}_2$	1.20	1307	3.4
2-Amino-ethanol	$\text{C}_2\text{H}_7\text{NO}$	1.018	1724	3.4
2-Aminotolidine (46)	$\text{C}_7\text{H}_9\text{N}$	0.999 (20°C)	1618	
4-Aminotolidine (46)	$\text{C}_7\text{H}_9\text{N}$	0.966 (45°C)	1480	
Ammonia (35)	NH_3	0.771	1729	6.68
Amorphous Polyolefin		0.98	962.6	
t-Amyl alcohol	$\text{C}_5\text{H}_{12}\text{O}$	0.81	1204	
Aminobenzene (41)	$\text{C}_6\text{H}_5\text{NO}_2$	1.022	1639	4.0
Aniline (41)	$\text{C}_6\text{H}_5\text{NO}_2$	1.022	1639	4.0
Argon (45)	Ar	1.400 (-188°C)	853	
Azine	$\text{C}_6\text{H}_5\text{N}$	0.982	1415	4.1
Benzene (29,40,41)	C_6H_6	0.879	1306	4.65
Benzol(29,40,41)	C_6H_6	0.879	1306	4.65
Bromine (21)	Br_2	2.928	889	3.0
Bromo-benzene (46)	$\text{C}_6\text{H}_5\text{Br}$	1.522	1170	
1-Bromo-butane (46)	$\text{C}_4\text{H}_9\text{Br}$	1.276 (20°C)	1019	
Bromo-ethane (46)	$\text{C}_2\text{H}_5\text{Br}$	1.460 (20°C)	900	
Bromoform (46,47)	CHBr_3	2.89 (20°C)	918	3.1
n-Butane (2)	C_4H_{10}	0.601 (0°C)	1085	5.8
2-Butanol	$\text{C}_4\text{H}_{10}\text{O}$	0.81	1240	3.3
sec-Butylalcohol	$\text{C}_4\text{H}_{10}\text{O}$	0.81	1240	3.3
n-Butyl bromide (46)	$\text{C}_4\text{H}_9\text{Br}$	1.276 (20°C)	1019	

Substance	Form Index	Specific Gravity	Sound Speed	$\Delta v/^\circ\text{C} - \text{m/s}/^\circ\text{C}$
n-Butyl chloride (22,46)	C ₄ H ₉ Cl	0.887	1140	4.57
tert Butyl chloride	C ₄ H ₉ Cl	0.84	984	4.2
Butyl oleate	C ₂₂ H ₄₂ O ₂		1404	3.0
2,3 Butylene glycol	C ₄ H ₁₀ O ₂	1.019	1484	1.51
Cadmium (7)	Cd		2237.7	
Carbinol (40,41)	CH ₄ O	0.791 (20°C)	1076	2.92
Carbitol	C ₆ H ₁₄ O ₃	0.988	1458	
Carbon dioxide (26)	CO ₂	1.101 (-37°C)	839	7.71
Carbon disulphide	CS ₂	1.261 (22°C)	1149	
Carbon tetrachloride(33,35,47)	CCl ₄	1.595 (20°C)	926	2.48
Carbon tetrafluoride (14)	CF ₄	1.75 (-150°C)	875.2	6.61
Cetane (23)	C ₁₆ H ₃₄	0.773 (20°C)	1338	3.71
Chloro-benezene	C ₆ H ₅ Cl	1.106	1273	3.6
1-Chloro-butane (22,46)	C ₄ H ₉ Cl	0.887	1140	4.57
Chloro-diFluoromethane (3) (Freon 22)	CHClF ₂	1.491 (-69°C)	893.9	4.79
Chloroform (47)	CHCl ₃	1.489	979	3.4
1-Chloro-propane (47)	C ₃ H ₇ Cl	0.892	1058	
Chlorotrifluoromethane (5)	CClF ₃		724	5.26
Cinnamaldehyde	C ₉ H ₈ O	1.112	1554	3.2
Cinnamic aldehyde	C ₉ H ₈ O	1.112	1554	3.2
Colamine	C ₂ H ₇ NO	1.018	1724	3.4
o-Cresol (46)	C ₇ H ₈ O	1.047 (20°C)	1541	
m-Cresol (46)	C ₇ H ₈ O	1.034 (20°C)	1500	
Cyanomethane	C ₂ H ₃ N	0.783	1290	4.1
Cyclohexane (15)	C ₆ H ₁₂	0.779 (20°C)	1248	5.41
Cyclohexanol	C ₆ H ₁₂ O	0.962	1454	3.6
Cyclohexanone	C ₆ H ₁₀ O	0.948	1423	4.0
Decane (46)	C ₁₀ H ₂₂	0.730	1252	
1-Decene (27)	C ₁₀ H ₂₀	0.746	1235	4.0
n-Decylene (27)	C ₁₀ H ₂₀	0.746	1235	4.0
Diacetyl	C ₄ H ₆ O ₂	0.99	1236	4.6
Diamylamine	C ₁₀ H ₂₃ N		1256	3.9
1,2 Dibromo-ethane (47)	C ₂ H ₄ Br ₂	2.18	995	
trans-1,2-Dibromoethene(47)	C ₂ H ₂ Br ₂	2.231	935	
Dibutyl phthalate	C ₈ H ₂₂ O ₄		1408	
Dichloro-t-butyl alcohol	C ₄ H ₈ Cl ₂ O		1304	3.8
2,3 Dichlorodioxane	C ₂ H ₆ Cl ₂ O ₂		1391	3.7
Dichlorodifluoromethane (3) (Freon 12)	CCl ₂ F ₂	1.516 (-40°C)	774.1	4.24
1,2 Dichloro ethane (47)	C ₂ H ₄ Cl ₂	1.253	1193	

Substance	Form Index	Specific Gravity	Sound Speed	$\Delta v/^\circ\text{C} - \text{m/s}/^\circ\text{C}$
cis 1,2-Dichloro-Ethene(3,47)	$\text{C}_2\text{H}_2\text{Cl}_2$	1.284	1061	
trans 1,2-Dichloro-ethene(3,47)	$\text{C}_2\text{H}_2\text{Cl}_2$	1.257	1010	
Dichloro-fluoromethane (3) (Freon 21)	CHCl_2F	1.426 (0°C)	891	3.97
1-2-Dichlorohexafluoro cyclobutane (47)	$\text{C}_4\text{Cl}_2\text{F}_6$	1.654	669	
1-3-Dichloro-isobutane	$\text{C}_4\text{H}_8\text{Cl}_2$	1.14	1220	3.4
Dichloro methane (3)	CH_2Cl_2	1.327	1070	3.94
1,1-Dichloro-1,2,2,2 tetra fluoroethane	$\text{CClF}_2\text{-CClF}_2$	1.455	665.3	3.73
Diethyl ether	$\text{C}_4\text{H}_{10}\text{O}$	0.713	985	4.87
Diethylene glycol, monoethyl ether	$\text{C}_6\text{H}_{14}\text{O}_3$	0.988	1458	
Diethylenimide oxide	$\text{C}_4\text{H}_9\text{NO}$	1.00	1442	3.8
1,2-bis(DiFluoramino) butane (43)	$\text{C}_4\text{H}_8(\text{NF}_2)_2$	1.216	1000	
1,2bis(DiFluoramino)- 2-methylpropane (43)	$\text{C}_4\text{H}_9(\text{NF}_2)_2$	1.213	900	
1,2bis(DiFluoramino) propane (43)	$\text{C}_3\text{H}_6(\text{NF}_2)_2$	1.265	960	
2,2bis(DiFluoramino) propane (43)	$\text{C}_3\text{H}_6(\text{NF}_2)_2$	1.254	890	
2,2-Dihydroxydiethyl ether	$\text{C}_4\text{H}_{10}\text{O}_3$	1.116	1586	2.4
Dihydroxyethane	$\text{C}_2\text{H}_6\text{O}_2$	1.113	1658	2.1
1,3-Dimethyl-benzene (46)	C_8H_{10}	0.868 (15°C)	1343	
1,2-1.0Dimethyl-benzene(29,46)	C_8H_{10}	0.897 (20°C)	1331.5	4.1
1,4-Dimethyl-benzene (46)	C_8H_{10}		1334	
2,2-Dimethyl-butane (29,33)	C_6H_{14}	0.649 (20°C)	1079	
Dimethyl ketone	$\text{C}_3\text{H}_6\text{O}$	0.791	1174	4.5
Dimethyl pentane (47)	C_7H_{16}	0.674	1063	
Dimethyl phthalate	$\text{C}_8\text{H}_{10}\text{O}_4$	1.2	1463	
Diiodo-methane	CH_2I_2	3.235	980	
Dioxane	$\text{C}_4\text{H}_8\text{O}_2$	1.033	1376	
Dodecane (23)	$\text{C}_{12}\text{H}_{26}$	0.749	1279	3.85
1,2-Ethanediol	$\text{C}_2\text{H}_6\text{O}_2$	1.113	1658	2.1
Ethanenitrile	$\text{C}_2\text{H}_3\text{N}$	0.783	1290	
Ethanoic anhydride (22)	$(\text{CH}_3\text{CO})_2\text{O}$	1.082	1180	
Ethanol	$\text{C}_2\text{H}_6\text{O}$	0.789	1207	4.0
Ethanol amide	$\text{C}_2\text{H}_7\text{NO}$	1.018	1724	3.4
Ethoxyethane	$\text{C}_4\text{H}_{10}\text{O}$	0.713	985	4.87
Ethyl acetate (33)	$\text{C}_4\text{H}_8\text{O}_2$	0.901	1085	4.4
Ethyl alcohol	$\text{C}_2\text{H}_6\text{O}$	0.789	1207	4.0
Ethyl benzene (46)	C_8H_{10}	0.867(20°C)	1338	
Ethyl bromide (46)	$\text{C}_2\text{H}_5\text{Br}$	1.461 (20°C)	900	
Ethyl iodide (46)	$\text{C}_2\text{H}_5\text{I}$	1.950 (20°C)	876	
Ether	$\text{C}_4\text{H}_{10}\text{O}$	0.713	985	4.87
Ethyl ether	$\text{C}_4\text{H}_{10}\text{O}$	0.713	985	4.87

Substance	Form Index	Specific Gravity	Sound Speed	$\Delta v/^\circ\text{C} - \text{m/s}/^\circ\text{C}$
Ethylene bromide (47)	$\text{C}_2\text{H}_4\text{Br}_2$	2.18	995	
Ethylene chloride (47)	$\text{C}_2\text{H}_4\text{Cl}_2$	1.253	1193	
Ethylene glycol	$\text{C}_2\text{H}_6\text{O}_2$	1.113	1658	2.1
50% Glycol/ 50% H_2O			1578	
d-Fenochone	$\text{C}_{10}\text{H}_{16}\text{O}$	0.947	1320	
d-2-Fenechanone	$\text{C}_{10}\text{H}_{16}\text{O}$	0.947	1320	
Fluorine	F	0.545 (-143°C)	403	11.31
Fluoro-benzene (46)	$\text{C}_6\text{H}_5\text{F}$	1.024 (20°C)	1189	
Formaldehyde, methyl ester	$\text{C}_2\text{H}_4\text{O}_2$	0.974	1127	4.02
Formamide	CH_3NO	1.134 (20°C)	1622	2.2
Formic acid, amide	CH_3NO	1.134 (20°C)	1622	
Freon R12			774	
Furfural	$\text{C}_5\text{H}_4\text{O}_2$	1.157	1444	
Furfuryl alcohol	$\text{C}_5\text{H}_6\text{O}_2$	1.135	1450	3.4
Fural	$\text{C}_5\text{H}_4\text{O}_2$	1.157	1444	3.7
2-Furaldehyde	$\text{C}_5\text{H}_4\text{O}_2$	1.157	1444	3.7
2-Furancarboxaldehyde	$\text{C}_5\text{H}_4\text{O}_2$	1.157	1444	3.7
2-Furyl-Methanol	$\text{C}_5\text{H}_6\text{O}_2$	1.135	1450	3.4
Gallium	Ga	6.095	2870 (@30°C)	
Glycerin	$\text{C}_3\text{H}_8\text{O}_3$	1.26	1904	2.2
Glycerol	$\text{C}_3\text{H}_8\text{O}_3$	1.26	1904	2.2
Glycol	$\text{C}_2\text{H}_6\text{O}_2$	1.113	1658	2.1
Helium (45)	He_4	0.125(-268.8°C)	183	
Heptane (22,23)	C_7H_{16}	0.684 (20°C)	1131	4.25
n-Heptane (29,33)	C_7H_{16}	0.684 (20°C)	1180	4.0
Hexachloro-Cyclopentadiene(47)	C_5Cl_6	1.7180	1150	
Hexadecane (23)	$\text{C}_{16}\text{H}_{34}$	0.773 (20°C)	1338	3.71
Hexalin	$\text{C}_6\text{H}_{12}\text{O}$	0.962	1454	3.6
Hexane (16,22,23)	C_6H_{14}	0.659	1112	2.71
n-Hexane (29,33)	C_6H_{14}	0.649 (20°C)	1079	4.53
2,5-Hexanedione	$\text{C}_6\text{H}_{10}\text{O}_2$	0.729	1399	3.6
n-Hexanol	$\text{C}_6\text{H}_{14}\text{O}$	0.819	1300	3.8
Hexahydrobenzene (15)	C_6H_{12}	0.779	1248	5.41
Hexahydrophenol	$\text{C}_6\text{H}_{12}\text{O}$	0.962	1454	3.6
Hexamethylene (15)	C_6H_{12}	0.779	1248	5.41
Hydrogen (45)	H_2	0.071 (-256°C)	1187	
2-Hydroxy-toluene (46)	$\text{C}_7\text{H}_8\text{O}$	1.047 (20°C)	1541	
3-Hydroxy-toluene (46)	$\text{C}_7\text{H}_8\text{O}$	1.034 (20°C)	1500	
Iodo-benzene (46)	$\text{C}_6\text{H}_5\text{I}$	1.823	1114	
Iodo-ethane (46)	$\text{C}_2\text{H}_5\text{I}$	1.950 (20°C)	876	

Substance	Form Index	Specific Gravity	Sound Speed	$\Delta v/^\circ\text{C} - \text{m/s}/^\circ\text{C}$
Iodo-methane	CH ₃ I	2.28 (20°C)	978	
Isobutyl acetate (22)	C ₆ H ₁₂ O		1180	4.85
Isobutanol	C ₄ H ₁₀ O	0.81 (20°C)	1212	
Iso-Butane			1219.8	
Isopentane (36)	C ₅ H ₁₂	0.62 (20°C)	980	4.8
Isopropanol (46)	C ₃ H ₈ O	0.785 (20°C)	1170	
Isopropyl alcohol (46)	C ₃ H ₈ O	0.785 (20°C)	1170	
Kerosene		0.81	1324	3.6
Ketohexamethylene	C ₆ H ₁₀ O	0.948	1423	4.0
Lithium fluoride (42)	LiF		2485	1.29
Mercury (45)	Hg	13.594	1449	
Mesityloxide	C ₆ H ₁₆ O	0.85	1310	
Methane (25,28,38,39)	CH ₄	0.162	405(-89.15°C)	17.5
Methanol (40,41)	CH ₄ O	0.791 (20°C)	1076	2.92
Methyl acetate	C ₃ H ₆ O ₂	0.934	1211	
o-Methylaniline (46)	C ₇ H ₉ N	0.999 (20°C)	1618	
4-Methylaniline (46)	C ₇ H ₉ N	0.966 (45°C)	1480	
Methyl alcohol (40,44)	CH ₄ O	0.791 (20°C)	1076	2.92
Methyl benzene (16,52)	C ₇ H ₈	0.867	1328	4.27
2-Methyl-butane (36)	C ₅ H ₁₂	0.62 (20°C)	980	
Methyl carbinol	C ₂ H ₆ O	0.789	1207	4.0
Methyl-chloroform (47)	C ₂ H ₃ Cl ₃	1.33	985	
Methyl-cyanide	C ₂ H ₃ N	0.783	1290	
3-Methyl cyclohexanol	C ₇ H ₁₄ O	0.92	1400	
Methylene chloride (3)	CH ₂ Cl ₂	1.327	1070	3.94
Methylene iodide	CH ₂ I ₂	3.235	980	
Methyl formate (22)	C ₂ H ₄ O ₂	0.974 (20°C)	1127	4.02
Methyl iodide	CH ₃ I	2.28 (20°C)	978	
2-Methylphenol (46)	C ₇ H ₈ O	1.047 (20°C)	1541	
3-Methylphenol (46)	C ₇ H ₈ O	1.034 (20°C)	1500	
Milk, homogenized			1548	
Morpholine	C ₄ H ₉ NO	1.00	1442	3.8
Naphtha		0.76	1225	
Natural Gas (37)		0.316 (-103°C)	753	
Neon (45)	Ne	1.207 (-246°C)	595	
Nitrobenzene (46)	C ₆ H ₅ NO ₂	1.204 (20°C)	1415	
Nitrogen (45)	N ₂	0.808 (-199°C)	962	
Nitromethane (43)	CH ₃ NO ₂	1.135	1300	4.0
Nonane (23)	C ₉ H ₂ O	0.718 (20°C)	1207	4.04
1-Nonene (27)	C ₉ H ₁₈	0.736 (20°C)	1207	4.0

Substance	Form Index	Specific Gravity	Sound Speed	$\Delta v/^\circ\text{C} - \text{m/s}/^\circ\text{C}$
Octane (23)	C_8H_{18}	0.703	1172	4.14
n-Octane (29)	C_8H_{18}	0.704 (20°C)	1212.5	3.50
1-Octene (27)	C_8H_{16}	0.723 (20°C)	1175.5	4.10
Oil of Camphor Sassafrassy			1390	3.8
Oil, Car (SAE 20a.30)	1.74		870	
Oil, Castor	$\text{C}_{11}\text{H}_{10}\text{O}_{10}$	0.969	1477	3.6
Oil, Diesel		0.80	1250	
Oil, Fuel AA gravity		0.99	1485	3.7
Oil (Lubricating X200)			1530	5019.9
Oil (Olive)		0.912	1431	2.75
Oil (Peanut)		0.936	1458	
Oil (Sperm)		0.88	1440	
Oil, 6			1509	
2,2-Oxydiethanol	$\text{C}_4\text{H}_{10}\text{O}_3$	1.116	1586	2.4
Oxygen (45)	O_2	1.155 (-186°C)	952	
Pentachloro-ethane (47)	C_2HCl_5	1.687	1082	
Pentalin (47)	C_2HCl_5	1.687	1082	
Pentane (36)	C_5H_{12}	0.626 (20°C)	1020	
n-Pentane (47)	C_5H_{12}	0.557	1006	
Perchlorocyclopentadiene(47)	C_5Cl_6	1.718	1150	
Perchloro-ethylene (47)	C_2Cl_4	1.632	1036	
Perfluoro-1-Hepten (47)	C_7F_{14}	1.67	583	
Perfluoro-n-Hexane (47)	C_6F_{14}	1.672	508	
Phene (29,40,41)	C_6H_6	0.879	1306	4.65
β -Phenyl acrolein	$\text{C}_9\text{H}_8\text{O}$	1.112	1554	3.2
Phenylamine (41)	$\text{C}_6\text{H}_5\text{NO}_2$	1.022	1639	4.0
Phenyl bromide (46)	$\text{C}_6\text{H}_5\text{Br}$	1.522	1170	
Phenyl chloride	$\text{C}_6\text{H}_5\text{Cl}$	1.106	1273	3.6
Phenyl iodide (46)	$\text{C}_6\text{H}_5\text{I}$	1.823	1114	
Phenyl methane (16,52)	C_7H_8	0.867 (20°C)	1328	4.27
3-Phenyl propenal	$\text{C}_9\text{H}_8\text{O}$	1.112	1554	3.2
Phthalardione	$\text{C}_8\text{H}_4\text{O}_3$		1125	
Phthalic acid, anhydride	$\text{C}_8\text{H}_4\text{O}_3$		1125	
Phthalic anhydride	$\text{C}_8\text{H}_4\text{O}_3$		1125	
Pimelic ketone	$\text{C}_6\text{H}_{10}\text{O}$	0.948	1423	4.0
Plexiglas, Lucite, Acrylic			2651	
Polyterpene Resin		0.77	1099.8	
Potassium bromide (42)	Kbr		1169	0.71
Potassium fluoride (42)	KF		1792	1.03
Potassium iodide (42)	KI		985	0.64
Potassium nitrate (48)	KNO_3	1.859 (352°C)	1740.1	1.1

Substance	Form Index	Specific Gravity	Sound Speed	$\Delta v/^\circ\text{C} - \text{m/s}/^\circ\text{C}$
Propane (2,13)(-45 to -130°C)	C ₃ H ₈	0.585 (-45°C)	1003	5.7
1,2,3-Propanetriol	C ₃ H ₈ O ₃	1.26	1904	2.2
1-Propanol (46)	C ₃ H ₈ O	0.78 (20°C)	1222	
2-Propanol (46)	C ₃ H ₈ O	0.785 (20°C)	1170	
2-Propanone	C ₃ H ₆ O	0.791	1174	4.5
Propene (17,18,35)	C ₃ H ₆	0.563 (-13°C)	963	6.32
n-Propyl acetate (22)	C ₅ H ₁₀ O ₂	1.280 (2°C)	4.63	
n-Propyl alcohol	C ₃ H ₈ O	0.78 (20°C)	1222	
Propylchloride (47)	C ₃ H ₇ Cl	0.892	1058	
Propylene (17,18,35)	C ₃ H ₆	0.563 (-13°C)	963	6.32
Pyridine	C ₆ H ₅ N	0.982	1415	4.1
Refrigerant 11 (3,4)	CCl ₃ F	1.49	828.3	3.56
Refrigerant 12 (3)	CCl ₂ F ₂	1.516 (-40°C)	774.1	4.24
Refrigerant 14 (14)	CF ₄	1.75 (-150°C)	875.24	6.61
Refrigerant 21 (3)	CHCl ₂ F	1.426 (0°C)	891	3.97
Refrigerant 22 (3)	CHClF ₂	1.491 (-69°C)	893.9	4.79
Refrigerant 113 (3)	CCl ₂ F-CClF ₂	1.563	783.7	3.44
Refrigerant 114 (3)	CClF ₂ -CClF ₂	1.455	665.3	3.73
Refrigerant 115 (3)	C ₂ ClF ₅		656.4	4.42
Refrigerant C318 (3)	C ₄ F ₈	1.62 (-20°C)	574	3.88
Selenium (8)	Se		1072	0.68
Silicone (30 cp)		0.993	990	
Sodium fluoride (42)	NaF	0.877	2082	1.32
Sodium nitrate (48)	NaNO ₃	1.884 (336°C)	1763.3	0.74
Sodium nitrite (48)	NaNO ₂	1.805 (292°C)	1876.8	
Solvesso 3		0.877	1370	3.7
Spirit of wine	C ₂ H ₆ O	0.789	1207	4.0
Sulphur (7,8,10)	S		1177	-1.13
Sulphuric acid (1)	H ₂ SO ₄	1.841	1257.6	1.43
Tellurium (7)	Te		991	0.73
1,1,2,2-Tetrabromo-ethane(47)	C ₂ H ₂ Br ₄	2.966120	1027	
1,1,2,2-Tetrachloro-ethane(67)	C ₂ H ₂ Cl ₄	1.595	1147	
Tetrachloroethane (46)	C ₂ H ₂ Cl ₄	1.553 (20°C)	1170	
Tetrachloro-ethene (47)	C ₂ Cl ₄	1.632	1036	
Tetrachloro-methane (33,47)	CCl ₄	1.595 (20°C)	926	
Tetradecane (46)	C ₁₄ H ₃₀	0.763 (20°C)	1331	
Tetraethylene glycol	C ₈ H ₁₈ O ₅	1.123	1586/5203.4	3.0
Tetrafluoro-methane (14) (Freon 14)	CF ₄	1.75 (-150°C)	875.24	6.61
Tetrahydro-1,4-isoxazine	C ₄ H ₉ NO		1442	3.8
Toluene (16,52)	C ₇ H ₈	0.867 (20°C)	1328	4.27

Substance	Form Index	Specific Gravity	Sound Speed	$\Delta v/^\circ\text{C} - \text{m/s}/^\circ\text{C}$
o-Toluidine (46)	C ₇ H ₉ N	0.999 (20°C)	1618	
p-Toluidine (46)	C ₇ H ₉ N	0.966 (45°C)	1480	
Toluol	C ₇ H ₈	0.866	1308	4.2
Tribromo-methane (46,47)	CHBr ₃	2.89 (20°C)	918	
1,1,1-Trichloro-ethane (47)	C ₂ H ₃ Cl ₃	1.33	985	
Trichloro-ethene (47)	C ₂ HCl ₃	1.464	1028	
Trichloro-fluoromethane (3) (Freon 11)	CCl ₃ F	1.49	828.3	3.56
Trichloro-methane (47)	CHCl ₃	1.489	979	3.4
1,1,2-Trichloro-1,2,2-Trifluoro-Ethane	CCl ₂ F-CClF ₂	1.563	783.7	
Triethyl-amine (33)	C ₆ H ₁₅ N	0.726	1123	4.47
Triethylene glycol	C ₆ H ₁₄ O ₄	1.123	1608	3.8
1,1,1-Trifluoro-2-Chloro-2-Bromo-Ethane	C ₂ HClBrF ₃	1.869	693	
1,2,2-Trifluorotrichloro- ethane (Freon 113)	CCl ₂ F-CClF ₂	1.563	783.7	3.44
d-1,3,3-Trimethylnor- camphor	C ₁₀ H ₁₆ O	0.947	1320	
Trinitrotoluene (43)	C ₇ H ₅ (NO ₂) ₃	1.64	1610	
Turpentine		0.88	1255	
Unisis 800		0.87	1346	
Water, distilled (49,50)	H ₂ O	0.996	1498	-2.4
Water, heavy	D ² O		1400	
Water, sea		1.025	1531	-2.4
Wood Alcohol (40,41)	CH ₄ O	0.791 (20°C)	1076	2.92
Xenon (45)	Xe		630	
m-Xylene (46)	C ₈ H ₁₀	0.868 (15°C)	1343	
o-Xylene (29,46)	C ₈ H ₁₀	0.897 (20°C)	1331.5	4.1
p-Xylene (46)	C ₈ H ₁₀		1334	
Xylene hexafluoride	C ₈ H ₄ F ₆	1.37	879	
Zinc (7)	Zn		3298	