Sound Velocity in Liquids

KARL DEUTSCH

Liquid	Sound Velocity	Temperature T	$\Delta c_l/\Delta T$
	c_l [m/s]	°C	m/s °C
Ammonia	1663	16	-
Benzene	1166	17	-
Benzene	1295	25	-4,65
Butane/propane compound (2 bar) (6)	870	20	-
Carbon tetrachloride	943	20	-3,1
Castor oil	1477	25	-3,6
Chloroform	1001	23,5	-3,5
Diesel oil	1250	20	-
Dioxane (Diethylene dioxide)	1380	20	-
Engine oil (SAE 20 and 30)	1740	20	-
Ethyl ether	1006	20	-5,7
Ethanol	1207	25	-4,0
Ethylene glycol	1658	25	-2,1
Formic acid (HCOOH)	1287	20	-
Freon	973	20	-4,3
Glycerine	1923	20	-1,8
Heptane (n)	1165	23	-4,2
Hexane	1113	23	-
Kerosene	1295	34	-
Mercury	1451	20	-0,46
Methyl alcohol	1121	20	-3,3
Methylene chloride	1109	20	-
Methylene iodide	977	24	-
Nitrobenzene	1477	20	-3,7
Octane	1192	20	-4,2
Olive oil	1381	32	-
Paraffin oil	1420	33,5	-
Paraldehyde	1186	20	-
Pentane	1020	20	-
Perchlorethylene	1070	20	-
Paraffin	1395	15	-
Propyl alcohol	1234	24	-
Propyl alcohol, iso	1231	24	-
Sodium chloride solution 1 %	1487	25	-
Sodium chloride solution 25 %	1770	25	-
Spindle oil	1431	25	-
Turpentine oil	1280	27	-
Tetrachloride ethane	1155	28	-
Tetrachloroethylene	1027	28	-
Toluol	1320	23	-4,3

Trichloroethylene	1049	20	-
Water H2O (distilled)	1497	25	+2,4
Water D2O (heavy)	1399	25	+2,8
Water (sea water)	1531	25	+2,4
Xylene, m	1328	22	-4,1

Sources:

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[3] Hütte: Taschenbuch der Werkstoffkunde (Stoffhütte). 4. Aufl., Verlag W. Ernst & Sohn Berlin-München , (1967)

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[5] Sutilov, V.A.: Physik des Ultraschalls. Springer-Verlag, Wien NewYork (1984)

(6) Laboratory measurements of the KARL DEUTSCH company

The sound velocities are only true for the assigned temperature.