

## PERMITTIVITY AND VISCOSITY OF LIQUIDS

The table gives the static relative permittivity  $\epsilon_s$ , i.e., the relative permittivity measured in static fields or at low frequencies where no relaxation effects occur.

The static permittivity refers to nominal atmospheric pressure as long as the corresponding temperature is below the normal boiling point. Otherwise, at temperatures above the normal boiling point, the pressure is understood to be the saturated vapor pressure of the substance considered.

Viscosity values correspond to a nominal pressure of 1 atmosphere.

T = 298,2 K

Mol. Form.	Name	$\epsilon$	Viscosity in mPa s
Br <sub>2</sub>	Bromine	3.1484	0.944
H <sub>2</sub> O	Water	78.11	0.890
CCl <sub>4</sub>	Tetrachloromethane	2.2379	0.908
CHN	Hydrogen cyanide	114.9	0.183
CH <sub>2</sub> Cl <sub>2</sub>	Dichloromethane	8.93	0.413
CH <sub>3</sub> I	Iodomethane	6.97	0.469
CH <sub>3</sub> NO	Formamide	111.0	3.343
CS <sub>2</sub>	Carbon disulfide	2.6320	0.352
C <sub>2</sub> H <sub>3</sub> ClO	Acetyl chloride	15.8	0.368
C <sub>2</sub> H <sub>3</sub> N	Acetonitrile	36.64	0.369
C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	1,2-Dichloroethane	10.42	0.779
C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	Acetic acid	6.20	1.056
C <sub>2</sub> H <sub>6</sub> O	Ethanol	25.3	1.074
C <sub>2</sub> H <sub>6</sub> OS	Dimethyl sulfoxide	47.24	1.987
C <sub>2</sub> H <sub>6</sub> O <sub>2</sub>	Ethylene glycol	41.4	16.1
C <sub>3</sub> H <sub>3</sub> N	Acrylonitrile	33.0	-
C <sub>3</sub> H <sub>4</sub> O <sub>3</sub>	Ethylene carbonate	89.78	-
C <sub>3</sub> H <sub>5</sub> ClO	Epichlorohydrin	22.6	1.073
C <sub>2</sub> H <sub>5</sub> Br	Bromoethane	9.01	0.374
C <sub>3</sub> H <sub>6</sub> O	Acetone	21.01	0.306
C <sub>3</sub> H <sub>7</sub> NO	<i>N,N</i> -Dimethylformamide	38.25	0.794
C <sub>3</sub> H <sub>8</sub> O	1-Propanol	20.8	1.945
C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>	Glycerol	46.53	93.4
C <sub>4</sub> H <sub>4</sub> O	Furan	2.88	0.361
C <sub>4</sub> H <sub>5</sub> N	Pyrrole	8.00	1.225
C <sub>4</sub> H <sub>8</sub> O	Tetrahydrofuran	7.52	0.456
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Ethyl acetate	6.0814	0.423
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	1,4-Dioxane	2.2189	1.177
C <sub>4</sub> H <sub>10</sub> O	1-Butanol	17.84	2.544
C <sub>4</sub> H <sub>10</sub> O	Diethyl ether	4.2666	0.224
C <sub>5</sub> H <sub>4</sub> O <sub>2</sub>	Furfural	42.1	1.587
C <sub>5</sub> H <sub>5</sub> N	Pyridine	13.260	0.879
C <sub>5</sub> H <sub>10</sub>	1-Pentene	2.011	0.195
C <sub>5</sub> H <sub>11</sub> N	Piperidine	4.33	1.573
C <sub>5</sub> H <sub>12</sub> O	1-Pentanol	15.13	3.619
C <sub>6</sub> F <sub>6</sub>	Hexafluorobenzene	2.029	2.789
C <sub>6</sub> H <sub>5</sub> Br	Bromobenzene	5.45	1.074
C <sub>6</sub> H <sub>5</sub> Cl	Chlorobenzene	5.6895	0.753
C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>	Nitrobenzene	35.6	1.863
C <sub>6</sub> H <sub>6</sub>	Benzene	2.2825	0.604
C <sub>6</sub> H <sub>7</sub> N	Aniline	7.06	3.847
C <sub>6</sub> H <sub>14</sub>	Hexane	1.8865	0.300
C <sub>7</sub> H <sub>8</sub>	Toluene	2.379	0.560
C <sub>7</sub> H <sub>8</sub> O	Anisole	4.30	1.056
C <sub>7</sub> H <sub>8</sub> O	<i>m</i> -Cresol	12.44	12.9
C <sub>7</sub> H <sub>9</sub> N	Benzylamine	5.18	1.624
C <sub>7</sub> H <sub>14</sub>	1-Heptene	2.092	0.340
C <sub>7</sub> H <sub>16</sub>	Heptane	1.9209	0.387
C <sub>8</sub> H <sub>8</sub>	Styrene	2.4737	0.695
C <sub>8</sub> H <sub>10</sub>	Ethylbenzene	2.4463	0.631