

Technical Handbook



Worldwide Level and Flow SolutionsSM



Magnetrol®

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Properties: Dielectric Constants of Liquids

This listing contains dielectric values for the most commonly used materials. This information can be used to help select a probe, establish how much capacitance information your particular application will develop, or determine the effect of a coating on the probe.

Liquids	Temperature		Dielectric Constant
	°F	°C	
Acenaphthene	70	21	3.0
Acetal	70	21	3.6
Acetaldehyde	50	10	22.2
Acetaldoxime	70	21	3.4
Acetamide	68	20	4.0
Acetanilide	71	22	2.9
Acetic Acid	65	18	6.1
Acetic Anhydride	70	21	22.0
Acetone	75	24	20.7
Acetone	80	27	20.7
Acetone	130	54	17.7
Acetonitrile	70	21	37.5
Acetophenone	75	24	17.3
Acetoxime	75	24	3.0
Acetylacetone	68	20	23.1
Acetyl bromide	68	20	16.5
Acetyl chloride	68	20	15.8
Acetylmethyl Hexyl Ketone	66	19	27.9
Acrylic Resin	70	20	3.0
Aliphatic Amine	195	90	7.2
Allyl Alcohol	70	21	21.0
Allyl Bromide	66	19	7.0
Allyl Chloride	68	20	8.2
Allyl Iodide	66	19	6.1
Allyl Isothiocyanate	64	18	17.5
Alluminum Bromide	212	100	3.4
Alluminum Oleate	68	20	2.4
Alox 600	130	54	4.1
Aminox	275	135	2.4
Ammonia	-30	-34	22.4
Ammonia	-104	-75	25.0
Ammonia	75	24	16.9
Ammonia, Aqueous	70	21	16.8
Amyl Acetate	68	20	5.0
Amyl Alcohol	-180	-118	35.5
Amyl Alcohol	68	20	15.8
Amyl Alcohol	140	60	11.2
Amylamine	72	22	4.6
Amyl Benzoate	68	20	5.1
Amyl Bromide	50	10	6.3
Amyl Chloride	52	11	6.6
Amylene	70	21	2.0
Amylene Bromide	58	14	5.6
Amyl Ether	60	16	3.1
Amyl Formate	66	19	5.7
Amyl Iodide	62	17	6.9
Amylmercaptan	68	20	4.7
Amyl Nitrate	62	17	9.1
Amyl Thiocyanate	68	20	17.4
Aniline	32	0	7.8
Aniline	68	20	7.3
Aniline	212	100	5.5
Anisaldehyde	68	20	15.8
Anisoldoxine	145	63	9.2
Anisole	68	20	4.3
Antimony Pentachloride	68	20	3.2
Antimony Tribromide	212	100	20.9
Antimony Trichloride	166	74	33.0
Antimony Tricodide	347	175	13.9
Arsenic Tribromide	98	37	9.0

Non-conductive materials are those with dielectric values less than 10. Conductive materials are those with dielectric values greater than 10.

Liquids	Temperature		Dielectric Constant
	°F	°C	
Arsenic Trichloride	70	21	12.4
Arsenic Triiodide	302	150	7.0
Arsine	-58	-50	2.7
Asphalt	75	24	2.7
Azoxyanisole	122	50	2.3
Azoxybenzene	104	40	5.1
BPA	68	20	5.0
Beef Talo	70	21	2.8
Benzal Chloride	68	20	6.9
Benzaldehyde	68	20	17.0
Benzaldoxime	68	20	3.8
Benzene	68	20	2.3
Benzil	202	95	13.0
Benzonitrile	68	20	26.0
Benzonitrile	160	71	22.0
Benzophenone	68	20	13.0
Benzophenone	122	50	11.4
Benzotrichloride	68	20	7.4
Benzoylacetone	68	20	3.8
Benzoyl Chloride	158	70	22.1
Benzoyl Chloride	75	24	19.0
Benzyl Acetate	70	21	5.0
Benzyl Alcohol	68	20	13.0
Benzylamine	68	20	4.6
Benzyl Benzoate	68	20	4.8
Benzyl Chloride	68	20	6.4
Benzyl Cyanide	68	20	18.3
Benzyl Ethylamine	68	20	4.3
Benzyl Methylamine	67	19	4.4
Benzyl Salicylate	68	20	4.1
Bornyl Acetate	70	21	4.6
Boron Bromide	32	0	2.6
Boronyl Chloride	202	95	5.2
Bromal	70	21	7.6
Bromocotyl Bromide	68	20	12.6
Bromohexadecane	76	24	3.7
Bromine	68	20	3.1
Bromo-2-Ethoxyheptane	68	20	5.5
Bromoaniline	66	19	13.0
Bromoanisole	86	30	7.1
Bromobenzene	68	20	5.4
Bromobutylene	68	20	5.8
Bromobutyric Acid	68	20	7.2
Bromodecane	76	24	4.4
Bromodocosane	130	54	3.1
Bromododocane	76	24	4.1
Bromo-2-Othoxypentane	76	24	6.5
Bromoform	68	20	4.4
Bromoheptane	76	24	5.3
Bromohexane	76	24	5.8
Bromolsovoleric Acid	68	20	6.5
Bromonaphtholene	66	19	5.1
Bromooctadecane	86	30	3.5
Bromopentaecane	68	20	3.9
Bromopropionic Acid	68	20	11.0
Bromotoluene	68	20	5.1
Bromotridecane	50	10	4.2
Bromoundecane	15	-9	4.7
Butadiene	77	25	2.4
Butane	30	-1	1.4
N-Butylacetate	66	19	5.1

Properties: Dielectric Constants of Liquids (cont.)

Liquids	Temperature		Dielectric Constant
	°F	°C	
Iso-Butylacetate	68	20	5.6
Iso-Butylamine	70	21	4.5
N-Butyl Alcohol	66	19	7.8
Iso-Butyl Alcohol	112	45	31.7
Iso-Butyl Alcohol	32	0	20.5
Iso-Butyl Alcohol	68	20	18.7
Butylomine	70	21	5.4
N-Butyl Bromide	68	20	6.6
Butyl Chlorol	64	18	10.0
Butyl Chloride	68	20	9.6
N-Butyl Formate	317	158	2.4
N-Butyl Iodide	77	25	6.1
Iso-Butyl Iodide	68	20	5.8
Iso-Butyl Nitrate	66	19	11.9
Butyric Anhydride	68	20	12.0
Butyroldehyda	79	26	13.4
Butyric Acid	68	20	2.8
N-Butyricacid	68	20	2.9
Iso-Butyric Acid	68	20	2.7
Butyric Anhydride	68	20	12.9
Butyronitrile	70	21	20.7
Iso-Butyronitrile	75	24	20.8
Cable Oil	75	24	2.2
Camphanedione	398	203	16.0
Camphene	68	20	2.7
Camphorpinacane	68	20	3.6
Caproic Acid	160	71	2.6
Caprolactum	180	82	13.1
Caprylic Acid	65	18	3.2
Carbon Dioxide	32	0	1.6
Carbon Dioxide	-110	-80	2.1
Carbon Disulfide	68	20	2.6
Carbon Tetrachloride	68	20	2.2
Carvenone	68	20	18.4
Carveol	64	18	11.2
Carvone	71	22	11.0
Castor Oil	58	14	4.8
Castor Oil	75	24	2.6
Camphene	104	40	2.3
Camphoric Imide	480	249	5.5
Cetyl Iodide	68	20	3.3
Chloral Hydrate	59	15	5.5
Chloroctic Acid	140	60	12.3
Chlorine	32	0	2.0
Chloroocelle Acid	68	20	21.0
Chloroacetone	68	20	29.8
Chlorobenzene	68	20	5.9
Chlorobenzene	212	100	4.7
Chlorocyclohexane	76	24	7.6
Chloroheptane	71	22	5.5
Chloroform	32	0	5.5
Chloroheptane oxime	192	89	3.0
Chlorohydrate	68	20	3.3
Chloronophtholene	76	24	5.0
O-Chlorophenol	66	19	8.2
3-Chloro-1, Dihydroprone	68	20	31.0
Chlorooctane	76	24	5.1
Chlorotoluene	68	20	4.7
Cholestrol	80	27	2.9
Chorine	170	77	1.7
Chromyl Chloride	68	20	2.6
Cis-3-Hexene	76	24	2.1
Cinnamaldehyde	75	24	16.9
Citraconic Anhydride	68	20	40.3
Cocaine	68	20	3.1
Copper Oleate	68	20	2.8
Creosol	62	17	10.6
O-Cresol	75	24	5.8
M-Cresol	75	24	5.0
P-Cresol	75	24	5.6

Liquids	Temperature		Dielectric Constant
	°F	°C	
Cresol	75	24	5.0
Crisco Oil	130	54	2.2
Crotonic Nitric	68	20	28.0
Cumaldehyde	59	15	11.0
Cumene	68	20	2.4
Cumicaldehyde	58	14	10.7
Cupric Oxide	60	16	18.1
Cyanoacetic Acid	40	4	33.0
Cyanoethyl Acetate	68	20	19.3
Cyanogen	73	23	2.6
Cyclohedane	68	20	2.0
Cyclohexane	68	20	2.0
Cyclohexanecarboxylic Acid	88	31	2.6
Cyclohexanone oxime	192	89	3.0
Cyclohexanemethanol	140	60	9.7
Cyclohexanone	68	20	18.2
Cyclohexylomine	-5	-21	5.3
Cyclohexylphenol	130	54	4.0
Cyclohexyltrifluoromethane	-120	-84	11.0
Cyclohexanol	77	25	15.0
Cyclopentane	68	20	2.2
P-Cymene	63	17	2.3
Cymene	62	17	2.3
Decahydronaphthalene	68	20	2.2
Decamethylcyclopentasiloxane	68	20	2.5
Decamethyltetrasiloxane	68	20	2.4
Decane	68	20	2.0
Decane	340	171	1.8
Decylene	62	17	2.7
Decyne	68	20	2.2
Decanol	68	20	8.1
Deuterium	68	20	1.3
Deuterium Oxide	76	24	78.3
Diacetoxybutane	76	24	6.6
Diallyl Sufide	68	20	4.9
Dibenzyl Sebacate	68	20	4.6
Dibroheptane	24	-4	5.1
Dibromobenzene	68	20	8.8
P-Dibromobenzene	190	88	4.5
Dibromobutane	68	20	5.7
Dibromoethylene	32	0	7.7
Dibromomethane	50	10	7.8
Dibromoheptane	76	24	5.1
Dibromohexane	76	24	5.0
Dibromopropane	68	20	4.3
Dibromopropyl Alcohol	70	21	9.1
Dibenzylomine	68	20	3.6
Dibutyl phtolote	86	30	6.4
Dibutyl tartrote	109	43	9.4
Dichloroctic Acid	68	20	10.7
Dibutyl sebacote	86	30	4.5
Dichlorocotone	68	20	14.0
O-Dichlorobenzone	77	25	7.5
P-Dichlorobenzone	68	20	2.9
O-Dichlorobenzene	68	20	7.5
Dichlorobenzene	127	53	2.8
1, 2-Dichloroethane	77	25	10.7
Dichloroethane	68	20	16.7
Dichlorostyrene	76	24	2.6
Dichlorotoluene	68	20	6.9
Dicyclohexyladipate	95	35	4.8
Diesel	70	21	1.9
1-Diethoxyethane	76	24	3.8
Diethyloniline	66	19	5.5
Diethyl Benzalmamate	32	0	8.0
Diethyl Di-malmate	64	18	10.2
Diethyl Disulfide	64	18	15.9
Diethyl Glutarate	86	30	6.7
Diethyl Ketone	58	14	17.3
Diethyl-L-malate	68	20	9.5

Properties: Dielectric Constants of Liquids (cont.)

Liquids	Temperature		Dielectric Constant
	°F	°C	
Diethyl Malanate	70	21	7.9
Diethylamine	68	20	3.7
Diethyl Oxalate	70	21	8.2
Diethyl Oxalacetate	66	19	6.1
Diethyl Racemote	68	20	4.5
Diethyl Sebacate	86	30	5.0
Diethyl Succinate	86	30	6.6
Diethyl Succinosuccinate	66	19	2.5
Diethyl Sulfide	68	20	7.2
Diethyl Sulfite	68	20	15.9
Diethyl Tortrate	68	20	4.5
Diethyl Disulfide	66	19	15.9
Dihydrocoroane	66	19	8.7
Dihydrocorvane	66	19	8.5
Diimylamine	64	18	2.5
Diioomylene	62	17	2.4
Diiodoethylene	180	82	4.0
Diiodomethane	76	24	5.3
Diisoomyl	62	17	2.0
Diisobutylomine	71	22	2.7
Dimethoxybenzene	73	23	4.5
Dimethylbromoethylene	68	20	6.7
Dimethyldichloro Silane	68	20	12.3
Dimethyleyclohexyomine	180	82	4.4
Dimethyloniline	68	20	4.4
Dimethyl Ethyl	68	20	11.7
Dimethyl Ethyl Carbinol	68	20	11.7
Dimethylheptane	68	20	1.9
Dimethyl-2-hexane	68	20	2.4
Dimethyl-1-Hydroxybenzene	62	17	4.8
Dimethyl Malanate	68	20	10.4
Dimethyl Oxalate	68	20	3.0
Dimethylpentane	68	20	1.9
Dimethylquinoxaline	76	24	2.3
Dimethyl Sulfide	68	20	6.3
Dimethyl Sulfate	68	20	55.0
Dimethyltoluidine	68	20	3.3
M-Dinitro Benzene	68	20	2.8
Dinitrogen Oxide	32	0	1.6
Dinitrogen Tetroxide	58	14	2.5
Diocyl phthalate	76	24	5.1
Dioxane 1,4	77	25	2.2
Dipolmitin	161	72	3.5
Dipentene	68	20	2.3
Diphenyl	166	74	2.5
Diphenylomine	125	52	3.3
Diphenylethane	230	110	2.4
Diphenyl Ether	82	28	3.9
Diphenylmethane	62	17	2.6
Dipropylomine	70	21	2.9
Dipropyl Ketone	62	17	12.6
Distearin	172	78	3.3
Docosane	122	50	2.0
Dodeanol	76	24	6.5
Dodecamethylcyclohexisilox	68	20	2.6
Dodecamethylpentasiloxane	68	20	2.5
Dodecyne	76	24	2.2
Dowtherm	70	21	3.4
Epichlorohydrin	68	20	22.9
Epon Resin	75	24	13.3
Ethonediomine	68	20	14.2
Ethanethiol	58	14	6.9
Ethanethiolic Acid	68	20	13.0
Ethanol	77	25	24.3
Ether	75	25	4.3
Ethoxybenzene	68	20	4.2
Ethoxyethyl Acetate	86	30	7.6
Ethoxypentane	73	23	3.6
Ethoxy-3-methylbutane	68	20	4.0
Ethoxytoluene	68	20	3.9

Liquids	Temperature		Dielectric Constant
	°F	°C	
Ethoxynaphthalene	66	19	3.3
Ethyl Acetate	68	20	6.4
Ethyl Acetoacetate	71	22	15.9
Ethyl Acetoneoxalate	66	19	16.1
Ethyl Acetophenoneoxalate	66	19	3.3
Ethyl Alcohol	77	25	24.3
Ethyl Acrylate	257	125	11.7
Ethylamine	70	21	6.3
Ethyl Amyl Ether	68	20	4.0
Ethyloniline	68	20	5.9
Ethyl Benzene	68	0	5.5
Ethyl Benzoate	68	20	6.0
Ethyl Benzoylacetate	68	20	12.8
Ethyl Benzoylacetateacetate	70	21	8.6
Ethyl Benzyl Ether	68	20	3.8
Ethyl 1-Brombutyrate	68	20	8.0
Ethyl Bromide	64	18	4.9
Ethyl Bromoisobutyrate	68	20	7.9
Ethyl Bromopropionate	68	20	9.4
Ethyl Butyrate	68	20	5.1
Ethyl Carbonate	68	20	3.1
Ethyl Chloracetate	68	20	11.6
Ethyl Chloroformate	68	20	11.3
Ethyl Chloropropionate	68	20	10.1
Ethyl Cinnamate	66	19	5.3
Ethyl Cyanoacetate	68	20	27.0
Ethyl Cyclobutane	68	20	2.0
Ethyl Dodeconoate	68	20	3.4
Ethylene	68	20	1.6
Ethylene Chloride	68	20	10.5
Ethylene Chlorohydrin	75	24	25.0
Ethylene Cyanide	136	58	58.3
Ethylenediamine	64	18	16.0
Ethylene Glycol	68	20	37.0
Ethylene Oxide	30	-1	13.9
Ethyl Ether	-148	-100	8.1
Ethyl Ether	-40	-40	5.7
Ethyl Ether	68	20	4.3
Ethyl Ethoxybenzoate	70	21	7.1
Ethyl Formate	66	19	8.4
Ethyl Formylphenylacetate	68	20	3.0
Ethyl Fumarate	73	23	6.5
Ethyl Iodide	68	20	7.4
Ethyl 2-Iodopropionate	68	20	8.8
Ethyl Iso-Thioconate	68	20	19.7
Ethyl Isothiocyanate	68	20	19.7
Ethyl Levulinatate	70	21	12.1
Ethyl Maleate	73	23	8.5
Ethyl Mercoptan	68	20	8.0
Ethyl Nitrate	68	20	19.7
Ethyl Oleate	80	27	3.2
Ethyl Polmitate	68	20	3.2
Ethyl Pentane	68	20	1.9
Ethyl Phenylacetate	70	21	5.4
Ethyl Propionate	68	20	5.7
Ethyl Solicylate	70	21	8.6
Ethyl Silicate	68	20	4.1
Ethyl Stearate	104	40	3.0
Ethyl Toluene	76	24	2.2
Ethyl Trichloroacetate	68	20	7.8
Ethyl Thiocyanate	68	20	29.6
Ethyl Undeconoate	68	20	3.6
Ethyl Voleate	68	20	4.7
Ethyl Benzene	76	24	3.0
Etibine	-58	-50	2.5
Eugenol	64	18	6.1
Fenchone	68	20	12.0
Ferric Oleate	68	20	2.6
Ferrous Oxide	60	16	14.2
Ferrous Sulfate	58	14	14.2

Properties: Dielectric Constants of Liquids (cont.)

Liquids	Temperature		Dielectric Constant
	°F	°C	
Flexol	75	24	5.3
Flourine	-332	-20	1.5
Fluorotoluene	86	30	4.2
Formamide	68	20	84.0
Formic Acid	60	16	58.5
Freon 12	70	21	2.4
Freon 11	70	21	3.1
Freon 113	70	21	2.6
Furan	76	24	2.9
Furfuraldehyde	68	20	41.9
Furmanium Tetrachloride	76	24	2.4
Furfural	70	21	42.0
Gasoline	70	21	2.0
Germanium Tetrachloride	77	25	2.4
Grapeseed Oil	60	16	2.9
Glycerine	68	20	47.0
Glycerol	68	20	43.0
Glycerol	32	0	47.2
Glycerol Triacetate	70	21	6.0
Glycol	68	20	42.2
Glycol	122	50	35.6
Glycolic Nitrile	68	20	27.0
Guaiaicol	0	-18	11.0
Glucoshepitol	248	120	27.0
Hagemannic Ester	68	20	10.6
Helium-3	58	14	1.1
Heptadecanone	140	60	5.3
Heptane	68	20	1.9
Heptanone	68	20	11.9
Heptanoic Acid	160	71	2.6
Heptyl Alcohol	70	21	6.7
Hexamethylene	75	24	14.1
Hexamethylene Diamine	150	66	6.0
Hexomethyldisiloxane	68	20	2.2
Hexane	68	20	1.9
Hexanol	76	24	13.3
Hexanone	59	15	14.6
Hexdecamethylcyloheptasiloxane	68	20	2.7
Hexyl Iodide	68	20	6.6
Hexylene	62	17	2.0
Hydrocyanic Acid	70	21	2.3
Hydrofluoric Acid	32	0	83.6
Hydrogen	-423	-253	1.2
Hydrogen Bromide	76	24	3.8
Hydrogen Chloride	82	28	4.6
Hydrogen Cyanide	70	21	95.4
Hydrogen Fluoride	32	0	84.0
Hydrogen Iodide	72	22	2.9
Hydrogen Peroxide	32	0	84.2
Hydrogen Sulfide	-120	-84	9.3
Hydrogen Sulfide	48	9	5.8
Hydroxy-4-Methyl-2-Pentanone	76	24	18.2
Hydroxymethylene Camphor	86	30	5.2
Hydroxymethylenebenzyl Cyanide	68	20	6
Hydrazine	68	20	52.9
Indanol	140	60	7.8
Ido-Iodoheptadecane	68	20	3.5
Iodine	284	140	11.0
Iodoheptane	68	20	5.4
Iodoheptane	71	22	4.9
Iodomethane	68	20	7.0
Iodotoluene	68	20	6.1
Isoamyl Alcohol	74	23	15.3
Iodoctane	76	24	4.6
Isoamyl Bromide	76	24	6.1
Isoamyl Butyrate	68	20	3.9
Isoamyl Chloracetate	68	20	7.8
Isoamyl Chloride	64	18	6.4
Isoamyl Chloroformate	68	20	7.8
Isoamyl Iodide	65	18	5.6

Liquids	Temperature		Dielectric Constant
	°F	°C	
Isoamyl Propionate	68	20	4.2
Isoamyl Solicylate	68	20	5.4
Isoamyl Volelate	66	20	3.6
Isobutyl Acetate	68	20	5.6
Isobutyl Alcohol	68	20	18.7
Isobutylamine	70	21	4.5
Isobutyl Benzene	62	17	2.3
Isobutyl Benzoate	68	20	5.9
Isobutyl Bromide	68	20	6.6
Isobutyl Bulryate	68	20	4.0
Isobutyl Chloride	68	20	7.1
Isobutyl Cyanide	74	23	13.3
Isobutyl Chloroformate	68	20	9.2
Isobutyl Formate	66	18	6.5
Isobutylene Bromide	68	20	4.0
Isobutyl Iodide	68	20	5.8
Isobutyl Nitrate	66	19	11.9
Isobutyl Rininoate	70	21	4.7
Isobutyl Volelate	66	19	3.8
Isobutyric Acid	68	20	2.6
Isobutyric Anhydride	68	20	13.9
Isobutyronitrile	75	24	20.8
Isocopronitrile	68	20	15.7
Isopropyl Alcohol (IPA)	68	20	18.3
Isopropylamine	68	20	5.5
Isopropyl Benzene	68	20	2.4
Isopropylether	77	25	3.9
Isopropyl Nitrate	66	19	11.5
Isoquinoline	76	24	10.7
Isonofrol	70	21	3.4
IsoValeric Acid	68	20	2.7
Jet Fuel (Military—JP4)	70	21	1.7
Kerosene	70	21	1.8
Lactic Acid	66	19	19.4
Lactonitrilla	68	20	38.4
Lead Carbonate	60	16	18.1
Lead Nomoxide	60	16	25.9
Lead Oleate	64	18	3.2
Lead Tetrachloride	68	20	2.8
Lecithin	120	49	3.5
Lemon Oil	70	21	2.3
Limonene	68	20	2.3
Linseed Oil	55	13	3.4
Linoleic Acid	32	0	2.9
Lonone	65	18	10.0
Malonic Nitrate	97	36	47.0
Maleic Anhydride	140	60	51.0
Mannitol	71	22	3.0
Mandelic Nitrile	73	23	18.1
Mandenitrile	73	23	17.0
Menthol	107	42	4.0
Menthenol	110	43	2.1
Methallmine	77	25	9.4
Methoxyethyl Stearate	140	60	3.4
Mercury Diethyl	68	20	2.3
Mesitylene	68	20	2.4
Mesitylene	68	20	3.4
Mesityl Oxide	68	20	15.4
Methal Cyanacetate	69	21	29.4
Methane	32	0	1.6
Methane	-280	-173	1.7
Methanol	77	25	33.6
Methoxybenzene	76	24	4.3
Methoxytoluene	68	20	3.5
Methoxy-4-Methylphenol	60	16	11.0
Methyl Acetate	68	20	7.3
Methyl Acetopheononoaxalate	64	18	2.8
Methylal	68	20	2.7
Methyl Alcohol	-112	-80	56.6
Methyl Alcohol	32	0	37.5

Properties: Dielectric Constants of Liquids (cont.)

Liquids	Temperature		Dielectric Constant
	°F	°C	
Methyl Alcohol	68	20	33.1
Methylamine	70	21	10.5
Methyl Benzoate	68	20	6.6
Methyl Benzylamine	65	18	4.4
Methyl Butane	68	20	1.8
Methyl Butyl Ketone	62	17	12.4
Methyl Butyrate	68	20	5.6
Methyl Chloracetate	68	20	12.9
Methyl Chloride	77	25	12.9
Methyl Cyclohexonal	68	20	13.0
Methyl Cyclohexanone	192	89	18.0
Methyl Cyclopentane	68	20	2.0
Methyl-1-Cyclopentanol	95	35	6.9
Methylene Chloride	70	20	9.3
Methylene Iodide	70	21	5.1
Methyl Ether	78	26	5.0
Methyl Ethyl Ketone	72	22	18.4
Methyl Ethyl Ketoxime	68	20	3.4
Methyl Heptanol	68	20	5.3
Methyl Hexane	68	20	1.9
Methyl Kezyl Ketone	62	17	10.7
Methyl Iodide	68	20	7.1
Methyl-5 Ketocyclohexylene	68	20	24.0
Methyl Nitrobenzoate	80	27	27.0
Methyl Octane	69	21	30.0
Methoxyphenol	82	28	11.0
Methyl O-Methoxybenzoate	70	21	7.8
Methyl-2, 4-Pentonddiol	86	30	24.4
Methyl-2-Pentoene	68	21	13.1
Methylphenyl Hydrazin	66	19	7.3
Methyl Propionate	66	19	5.4
Methyl Propyl Ketone	58	14	16.8
Methyl p-toluate	91	33	4.3
Methyl Salicylate	68	20	9.0
Methyl Thiocyanate	68	20	35.9
Methyl Trichloro Silane	68	20	6.8
Methyl Tertiary-butyl Ether (MTBE)	68	20	2.6
Methyl Volorate	66	19	4.3
Metilox	160	71	4.5
Mineral Oil	80	27	2.1
Misella	68	20	1.9
Monomyristin	158	70	6.1
Monopalmitin	152	67	5.3
Monostearin	170	77	4.9
Nanene	50	10	2.0
Naptha	68	20	2.0
Napthalene	185	85	2.3
Napthalene	68	20	2.5
Napthonitrile	70	21	6.4
Napthyl Ethyl Ether	67	19	3.2
Nitric Acid	57	14	40.0
Nitroenisole	68	20	24.0
Nitrobenzol Doxime	248	120	48.1
Nitrobenzene	68	20	36.1
Nitrobenzene	77	25	34.9
Nitrobenzene	176	80	26.3
Nitrobenzyl Alcohol	68	20	22.0
Nitroethane	68	20	19.7
Nitrogen	-203	-130	1.5
Nitromethane	68	20	39.4
Nitroglycerin	68	20	19.0
Nitrosodimethylamine	68	20	54.0
Nitrosyl Bromide	4	-16	13.4
Nitrosyl Chloride	10	-12	18.2
Nitrotoluene	68	20	25.0
Nitrous Oxide	32	0	1.6
Nonane	68	20	2.0
O-Chlorophenol	66	19	8.2
Octadecanol	136	58	3.4
Octamethyltrisiloxane	68	20	2.3

Liquids	Temperature		Dielectric Constant
	°F	°C	
Octanone	68	20	10.3
Octane	68	20	2.0
Octane	76	24	2.1
Octyl Alcohol	64	18	3.4
Octylene	65	18	4.1
Octyl Iodide	68	20	4.9
Octic Acid	68	20	2.5
Oil, Almond	68	20	2.8
Oil, Cottonseed	57	14	3.1
Oil, Grapeseed	61	16	2.9
Oil, Lemon	70	21	2.3
Oil, Linseed	55	13	3.4
Oil, Olive	68	20	3.1
Oil, Paraffin	68	20	2.2-4.7
Oil, Peanut	52	11	3.0
Oil, Petroleum	68	20	2.1
Oil, Pyranol	68	20	5.3
Oil, Sesame	55	13	3.0
Oil, Sperm	68	20	3.2
Oil, Terpentine	68	20	2.2
Oil, Transformer	68	20	2.2
Oleic Acid	68	20	2.5
Oxygen	-315	-193	1.5
Palmitic Acid	160	71	2.3
Paraffin	68	20	2.2
Paraldehyde	68	20	14.5
Peanut Oil	110	43	3.5
Pentochloroethane	60	16	3.7
Pentane	68	20	1.8
Phenethiene	68	20	2.8
Phenenthrene	230	110	2.7
Phenetidine	70	21	7.3
Phenetole	70	21	4.5
Phenol	130	54	8.8
Phenol Ether	85	29	9.8
Phenol Isobuthyl	85	29	14.9
Phenoxyacetylene	76	24	4.8
Phenylacetaldehyde	68	20	4.8
Phenylacetanitrile	80	27	18.0
Phenylacetate	68	20	6.9
Phenylacetic	68	20	3.0
Phenylethanol	68	20	13.0
Phenylethyl Acetate	58	14	4.5
Phenylisocyanate	68	20	8.9
Phenyliso-Thiocyanate	68	20	10.7
Phosgene	32	0	4.7
Phenyl-1-Iropane	68	20	2.7
Phosphine	-76	-60	2.5
Phosphorus	93	34	4.1
Phenylsilylate	122	50	6.3
Phtholide	166	75	36.0
Pinocolin	62	17	12.8
Pinocone	75	24	7.4
Pinane	68	20	2.7
Piperidine	68	20	5.9
Propane	32	0	1.6
Propionoldehyde	62	17	18.9
Propionic Acid	66	19	3.1
Propionic Anhydride	60	16	18.0
Propionitrile	68	20	27.7
Propyl Acetate	68	20	6.3
Propyl Alcohol	68	20	21.8
Propyl Benzene	68	20	2.4
Propyl Bromide	68	20	7.2
Propyl Butyrate	68	20	4.3
Propyl Cholorformate	68	20	11.2
Propyl Ether	78	26	3.4
Propyl Formate	66	19	7.9
Propyl Nitrate	64	18	14.2
Propyl Propionate	68	20	4.7

Properties: Dielectric Constants of Liquids (cont.)

Liquids	Temperature		Dielectric Constant
	°F	°C	
Propyl Volerate	65	18	4.0
Prnopylene	77	25	1.9
Pseudocumene	60	16	2.4
Pulegone	68	20	9.5
Pulezone	66	19	9.7
Pyridine	68	20	12.5
Pyroanol Oil	68	20	5.3
Quinoline	77	25	9.0
Quinoline	460	238	5.1
Safrol	70	21	3.1
Salicyladehyde	68	20	13.9
Santowax	70	21	2.3
Sealtherm 800	750	400	2.2
Sealtherm XLT	750	400	2.3
Selenium	482	250	5.4
Sesame Oil	55	13	3.0
Silicon Tetrachloride	60	16	2.4
Sodium Hydroxide	70	20	80.0
Sodium Oleate	68	20	2.7
Sorbitol	176	80	33.5
Stannic Chloride	72	22	3.2
Stearic Acid	71	160	2.3
Styrene (phenylethene)	77	25	2.4
Succinamide	72	22	2.9
Succinic Acid	78	26	2.4
Sulfur Dioxide	-4	-20	17.6
Sulfurous Oxychloride	72	22	9.1
Sulfur Monochloride	58	14	4.8
Sulfur Trioxide	64	18	3.1
Sulfuryl Chloride	72	22	10.0
Sulfur	752	400	3.4
Sulfur	245	118	3.5
Sulfur Dioxide	32	0	15.6
Sulfuric Acid	68	20	84.0
Sulfuric Oxychloride	72	22	9.2
Sulfur Trioxide	70	21	3.6
Tallow (Beef)	68	20	2.8
Tallowamine	108	42	2.6
Tartaric Acid	68	20	6.0
Tartaric Acid	58	14	35.9
Terpinene	70	21	2.7
Terpineol	68	20	2.8
Tetrobromiethone	68	20	7.1
Tetrachloroethylene	70	21	2.5
Tetradecamethylcycloheptas	68	20	2.7
Tetraethyl Silicate	68	20	4.1
Tetradecanal	100	38	4.7
Tetraethyl Amylenetetrarar	66	189	4.4
Tetraethyl Propane Tetracarboxylate	66	19	5.2
Tetraethyl Propylene Tetracarboxylate	66	19	5.2
Tetrahydro-B-Naphthol	68	20	11.0
Tetratriocadiene	70	21	2.8
Tetronitrimethane	68	20	2.2
Thioacetic Acid	68	20	13.0
Thionyl Bromide	68	20	9.1
Thionyl Chloride	68	20	9.3
Thiophene	68	20	2.8
Thiophosphoryl Chloride	70	21	5.8
Tin Tetrochloride	68	20	2.9
Titanium Tetrochloride	68	20	2.8
Thujone	32	0	10.0
Toluene	68	20	2.4
Toluidine	68	20	6.0
Tolunitrile	73	23	18.8
Totane	111	44	5.5
Tolyl Methyl Ether	68	20	3.5
Trans-3-Hexane	76	24	2.0
Transformer Oil	68	20	2.2
Transmission Oil	80	27	2.2
Trichloroethane	68	20	7.5

Liquids	Temperature		Dielectric Constant
	°F	°C	
Triethylamine	75	24	2.4
Triethylamine	39	4	2.9
Trifluoroacetic Acid	68	20	39.0
Trinitrotoluene	68	20	22.0
Triethyl Ethanetricarbox	66	19	6.5
Trimethyl-3-Heptane	68	20	2.2
Tribomopropane	68	20	6.4
Tributylphosphate	86	30	8.0
Trichloroacetic Acid	141	61	4.5
Trichlorotoluene	70	21	6.9
Trichloroethylene	61	16	3.4
Trichloropropane	76	24	2.4
Tricosane	176	80	4.0
Tricosyl Phosphate	104	40	6.9
Triethyl Aconitate	68	20	6.4
Triethylamine	70	21	3.2
Triethylene Glycol	70	21	24.2
Triethyl Aluminum	68	20	2.9
Triethyl Isoaconitate	68	20	7.2
Trifluoroactic Acid	68	20	39.0
Trifluorotoluene	86	30	9.2
Triethylomine	39	4	2.9
Trimethylbenzene	68	20	2.3
Trimethylborate	68	20	8.2
Trimethylbutane	68	20	1.9
Trimethylpentane	68	20	2.0
Trimethylsulfanilic Acid	64	18	89.0
Trinitrobenzene	68	20	2.2
Trinitrotoluene	69	21	22.0
Triolein	76	24	3.2
Tripolmitin	140	60	2.9
Triphenylmethane	212	100	2.5
Tristearin	158	70	2.8
Turpentine	68	20	2.2
Undecane	68	20	2.0
Undecanone	58	14	8.4
Urea	71	22	3.5
Urethane	74	23	3.2
Valaraldehyde	58	14	11.8
Valeric Acid	62	17	2.6
Valeronitrile	70	21	17.7
Vanadium Oxybromide	78	26	3.6
Vanadium Oxychloride	78	26	3.4
Vanadium Tetrachloride	78	26	3.0
Vegetable Oil	100	38	4.0
Vegetable Oil	230	110	3.3
Veratrol	73	23	4.5
Vinyl Ether	68	20	3.9
Water	32	0	88.0
Water	68	20	80.0
Water	212	100	48.0
Water (Ultra-Clean, DI)	68	20	12-15
Wax	100	38	7.5
Xylene	68	20	2.4
Xylenol	62	17	3.9
Xylidine	68	20	5.0



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