

Surface tension values of some common test liquids for surface energy analysis

Name	CAS Ref.-No.	Surface tension @ 20 °C in mN/m	Temperature coefficient in mN/(m K)
1,2-Dichloro ethane	107-06-2	33.30	-0.1428
1,2,3-Tribromo propane	96-11-7	45.40	-0.1267
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	28.80	-0.0897
1,4-Dioxane	123-91-1	33.00	-0.1391
1,5-Pentanediol	111-29-5	43.30	-0.1161
1-Chlorobutane	109-69-3	23.10	-0.1117
1-Decanol	112-30-1	28.50	-0.0732
1-nitro propane	108-03-2	29.40	-0.1023
1-Octanol	111-87-5	27.60	-0.0795
Acetone (2-Propanone)	67-64-1	25.20	-0.1120
Aniline 22°C (AN)	62-53-3	43.40	-0.1085
2-Aminoethanol	141-43-5	48.89	-0.1115
Anthranilic acid ethylester 22°C	87-25-2	39.30	-0.0935
Anthranilic acid methylester 25 °C	134-20-3	43.71	-0.1152
Benzene	71-43-2	28.88	-0.1291
Benzylalcohol	100-51-6	39.00	-0.0920
Benzylbenzoate (BNBZ)	120-51-4	45.95	-0.1066
Bromobenzene	108-86-1	36.50	-0.1160
Bromoform	75-25-2	41.50	-0.1308
Butyronitrile	109-74-0	28.10	-0.1037
Carbon disulfid	75-15-0	32.30	-0.1484
Quinoline	91-22-5	43.12	-0.1063
Chloro benzene	108-90-7	33.60	-0.1191
Chloroform	67-66-3	27.50	-0.1295
Cyclohexane	110-82-7	24.95	-0.1211
Cyclohexanol 25 °C	108-93-0	34.40	-0.0966
Cyclopentanol	96-41-3	32.70	-0.1011
p-Cymene	99-87-6	28.10	-0.0941
Decalin	493-01-6	31.50	-0.1031

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Dichloromethane	75-09-2	26.50	-0.1284
Diiodomethane (DI)	75-11-6	50.80	-0.1376
1,3-Diiodopropane 23 °C	627-31-6	46.51	-0.1195
Diethylene glycol (DEG)	111-46-6	44.80	-0.0841
Dipropylene glycol	25265-71-8	33.90	-0.1070
Dipropylene glycol monomethylether	34590-94-8	28.41	-0.1088
Dodecyl benzene	123-01-3	30.70	
Ethanol	64-17-5	22.10	-0.0832
Ethylbenzene	100-41-4	29.20	-0.1094
Ethylbromide	74-96-4	24.20	-0.1159
Ethylene glycol (EG)	107-21-1	47.70	-0.0890
Formamide (FA)	75-12-7	58.20	-0.0842
Fumaric acid diethylester 22°C	623-91-6	31.40	-0.1039
Furfural (2-Furaldehyde)	98-01-1	41.90	-0.1225
Glycerol (GLY)	56-81-5	64.00	-0.0598
Ethylene glycol monoethyl ether (Ethyl Cellosolve)	110-80-5	28.60	-0.0918
Hexachlorobutadiene	87-68-3	36.00	-0.0994
Iodobenzene	591-50-4	39.70	-0.1123
Isoamylchloride	107-84-6	23.50	-0.1078
Isobutylchloride	513-36-0	21.90	-0.1144
Isopropanol	67-63-0	23.00	-0.0789
Isopropylbenzene	98-82-8	28.21	-0.1054
Isovaleronitrile	625-28-5	26.00	-0.0827
m-Nitrotoluene	99-08-1	41.40	-0.1140
Mercury	7439-97-6	425.41	-0.2049
Methanol	67-56-1	22.70	-0.0773
Methyl ethyl ketone (MEK)	78-93-3	24.60	-0.1199
Methyl naphthalene	90-12-0	38.60	-0.1118
N,N-dimethyl acetamide (DMA)	127-19-5	36.70	-0.1395

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N,N-dimethyl formamide (DMF)	68-12-2	37.10	-0.1400
N-methyl-2-pyrrolidone	872-50-4	40.79	-0.1156
n-Decane (DEC)	124-18-5	23.83	-0.0920
n-Dodecane (DDEC)	112-40-3	25.35	-0.0884
n-Heptane	142-82-5	20.14	-0.0980
n-Hexadecane (HDEC)	544-76-3	27.47	-0.0854
n-Hexane (HEX)	110-54-3	18.43	-0.1022
n-Octane (OCT)	111-65-9	21.62	-0.0951
n-Tetradecane (TDEC)	629-59-4	26.56	-0.0869
n-Undecane	1120-21-4	24.66	-0.0901
n-Butylbenzene	104-51-8	29.23	-0.1082
n-Propylbenzene	103-65-1	28.99	-0.1071
Nitroethane	79-24-3	31.90	-0.1255
Nitrobenzene	98-95-3	43.90	-0.1177
Nitromethane	75-52-5	36.80	-0.1678
o-Nitrotoluene	88-72-2	41.50	-0.1229
Perfluoroheptane	335-57-9	12.85	-0.0972
Perfluorohexane	355-42-0	11.91	-0.0935
Perfluorooctane	307-34-6	14.00	-0.0902
Phenylisothiocyanate	103-72-0	41.50	-0.1172
Phthalic acid diethylester 22°C	84-66-2	37.00	-0.1018
Polyethylen glycol 200 (PEG)	25322-68-3	43.50	-0.1170
Polydimethyl siloxane (Baysilone M5)	9016-00-6	19.00	-0.0365
Propanol 25 °C	71-23-8	23.70	-0.0777
Pyridine	110-86-1	38.00	-0.1372
3-Pyridylcarbinol 23°C (PYC)	100-55-0	47.68	-0.1259
Pyrrol (PY)	109-97-7	36.60	-0.1100
sym-Tetrabromoethane	79-27-6	49.70	-0.1528
tert-Butylchloride	507-20-0	19.60	-0.1072

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sym-Tetrachloromethane	56-23-5	26.95	-0.1224
Tetrahydrofuran (THF)	109-99-9	26.40	-0.1277
Thiodiglycol (2,2'-Thiobisethanol) (TDG)	111-48-8	54.00	-0.0830
Toluene	108-88-3	28.40	-0.1189
Tricresylphosphate (TCP)	1330-78-5	40.90	-0.0887
Water (WA)	7732-18-5	72.80	-0.1514
o-Xylene	95-47-6	30.10	-0.1101
m-Xylene	108-38-3	28.90	-0.1104
a-Bromonaphthalene (BN)	90-11-9	44.40	-0.0979
a-Chloronaphthalene	90-13-1	41.80	-0.1064

Solid surface energy data (SFE) for common polymers

Name	CAS Ref.-No.	SFE at 20 °C in mN/m	Disp. comp. of SFE in mN/m	Polar comp. of SFE in mN/m
Polyethylene-linear PE	9002-88-4	35,7	35,7	0
Polyethylene-branched PE	9002-88-4	35,3	35,3	0
Polypropylene-isotactic PP	25085-53-4	30,1	30,1	0
Polyisobutylene PIB	9003-27-4	33,6	33,6	0
Polystyrene PS	9003-53-6	40,7	34,5	6,1
Poly- α -methyl styrene PMS (Polyvinyltoluene PVT)	9017-21-4	39	35	4
Polyvinyl fluoride PVF	24981-14-4	36,7	31,2	5,5
Polyvinylidene fluoride PVDF	24937-79-9	30,3	23,3	7
Polytrifluoroethylene P3FEt/PTrFE	24980-67-4	23,9	19,8	4,1
Polytetrafluoroethylene PTFE (Teflon™)	9002-84-0	20	18,4	1,6
Polyvinylchloride PVC	9002-86-2	41,5	39,5	2
Polyvinylidene chloride PVDC	9002-85-1	45	40,5	4,5
Polychlorotrifluoroethylene PCTrFE	25101-45-5	30,9	22,3	8,6
Polyvinylacetate PVA	9003-20-7	36,5	25,1	11,4
Polymethylacrylate (Polymethacrylic acid) PMAA	25087-26-7	41	29,7	10,3
Polyethylacrylate PEA	9003-32-1	37	30,7	6,3
Polymethylmethacrylate PMMA	87210-32-0	41,1	29,6	11,5
Polyethylmethacrylate PEMA	9003-42-3	35,9	26,9	9
Polybutylmethacrylate PBMA	25608-33-7	31,2	26,2	5
Polyisobutylmethacrylate PIBMA	9011-15-8	30,9	26,6	4,3
Poly(t-butylmethacrylate) PtBMA	-	30,4	26,7	3,7
Polyhexylmethacrylate PHMA	25087-17-6	30	27	3
Polyethyleneoxide PEO	25322-68-3	42,9	30,9	12
Polytetramethylene oxide PTME (Polytetrahydrofurane PTHF)	25190-06-1	31,9	27,4	4,5
Polyethyleneterephthalate PET	25038-59-9	44,6	35,6	9
Polyamide-6,6 PA-66	32131-17-2	46,5	32,5	14
Polyamide-12 PA-12	24937-16-4	40,7	35,9	4,9
Polydimethylsiloxane PDMS	9016-00-6	19,8	19	0,8
Polycarbonate PC	24936-68-3	34,2	27,7	6,5
Polyetheretherketone PEEK	31694-16-13	42,1	36,2	5,9