

Solvent Miscibility Table

溶媒互溶性對照表

SOLENT POLARITY CHART

SOLENT MISCIBILITY TABLE

Solvent	Relative Polarity		Group	Representative Solvent
	Compound Formula	Group		
Xylene	Ar - H	Aromatics	Petroleum ethers, ligroin, hexanes	
Water	R - O - R	Ethers	Toluene, benzene	
Trichloroethylene	R - X	Alkyl halides	Diethyl ether	
Toluene	R - COOR	Esters	Tetrachloroethane, chloroform	
Tetrahydrofuran	R - CO - R	Aldehydes and ketones	Ethyl acetate	
di-iso-Propyl Ether	R - NH ₂	Amines	Acetone, methyl ethyl ketone	
iso-Propanol ⁶	R - OH	Alcohols	Pyridine, triethylamine	
n-Propanol	R - COOH, R - COOH	Carboxylic acids	Methanol, ethanol, isopropanol, butanol	
Pentane	H - OH	Water	Dimethylformamide	
Methyl Ethyl Ketone ⁵			Ethanoic acid	
Methyl-t-Butyl Ether ⁴			Water	
Methanol				
Hexane				
Heptane				
di-Ethyl Ether				
Ethyl Acetate				
Ethanol				
Dioxane				
Dimethyl Sulfoxide ³				
Dimethylformamide				
Dichloromethane ²				
1,2-Dichloroethane ¹				
Cyclohexane				
Chloroform				
Carbon tetrachloride				
Butyl Acetate				
n-Butanol				
Benzene				
Acetonitrile				
Acetone				
Acetic Acid				

SOLVENT	POLARITY INDEX	REFRACTIVE INDEX @ 20° C	UV (nm) CUTOFF @ 1 AU	BOILING POINT (°C)	VISCOSITY (cPoise)	SOLUBILITY IN WATER (% w/w)
Acetic Acid	6.2	1.372	230	118	1.26	100
Acetone	5.1	1.359	330	56	0.32	100
Acetonitrile	5.8	1.344	190	82	0.37	100
Benzene	2.7	1.501	280	80	0.65	0.18
n-Butanol	4.0	1.394	254	125	0.73	0.43
Butyl Acetate	3.9	1.399	215	118	2.98	7.81
Carbon tetrachloride	1.6	1.466	263	77	0.97	0.08
Chloroform	4.1	1.446	245	61	0.57	0.815
Cyclohexane	0.2	1.426	200	81	1.00	0.01
1,2-Dichloroethane ¹	3.5	1.444	225	84	0.79	0.81
Dichloromethane ²	3.1	1.424	235	41	0.44	1.6
Dimethylformamide	6.4	1.431	268	155	0.92	100
Dimethyl sulfoxide ³	7.2	1.478	268	189	2.00	100
Dioxane	4.8	1.422	215	101	1.54	100
Ethanol	5.2	1.360	210	78	1.20	100
Ethyl Acetate	4.4	1.372	260	77	0.45	8.7
di-Ethyl Ether	2.8	1.353	220	35	0.32	6.89
Heptane	0.0	1.387	200	98	0.39	0.0003
Hexane	0.0	1.375	200	69	0.33	0.001
Methanol	5.1	1.329	205	65	0.60	100
Methyl-t-Butyl Ether ⁴	2.5	1.369	210	55	0.27	4.8
Methyl Ethyl Ketone ⁵	4.7	1.379	329	80	0.45	24
Pentane	0.0	1.358	200	36	0.23	0.004
n-Propanol	4.0	1.384	210	97	2.27	100
iso-Propanol ⁶	3.9	1.377	210	82	2.30	100
di-iso-Propyl Ether	2.2	1.368	220	68	0.37	100
Tetrahydrofuran	4.0	1.407	215	65	0.55	100
Toluene	2.4	1.496	285	111	0.59	0.051
Trichloroethylene	1.0	1.477	273	87	0.57	0.11
Water	9.0	1.333	200	100	1.00	100
Xylene	2.5	1.500	290	139	0.61	0.018

■ Immiscible

□ Miscible

SYNONYM TABLE

1. Ethylene Chloride
2. Methylene Chloride
3. Methyl Sulfoxide
4. tert-Butyl Methyl Ether
5. 2-Butanone
6. 2-Propanol

Immiscible means that in some proportions two phases will be produced.