B&J Solvents Properties Table

Solvent	Viscosity (cP at 20°C)	Boiling Point (°C)	Miscibility Number (M)	UV Cutoff (nm)	Polarity Index (P')	Eluotropic Values (ε0) C18	Silica	Alumina	Refractive Index (at 20°C)	Flash Point (°F)	Density (at 20°C)
Acetone	0.36	56.29	15, 17	330	5.1	0.56	8.8	0.53	1.3586	-4	0.7900
Acetonitrile	0.38*	81.6	11, 17	190	5.8	0.65	3.1	0.52	1.3441	42	0.7822
n-Butyl Acetate	0.74	126.11	22	254	4				1.3942	72	0.8796
n-Butyl Alcohol	2.98	117.5	15	215	3.9	0.7			1.3993	98	0.8097
n-Butyl Chloride	0.45	78.44		220	1	0.26		0.2	1.4021	15	0.8862
Chlorobenzene	0.8	131.69	21	287	2.7	0.3			1.5248	82	1.1058
Chloroform	0.57	61.15	19	245	4.1	0.4		0.26	1.4458		1.4892
Cyclohexane	1	80.72	28	200	0.2	0.04		0.03	1.4262	-4	0.7785
Cyclopentane	0.44	49.26		198	0.1	0.05			1.4064	19	0.7454
o-Dichlorobenzene	1.32t	180.48		295	2.7				1.5514	151	1.3058
Dichloromethane	0.44	39.75	20	233	3.1	0.42	_	0.3	1.4241		1.326
Dimethyl Acetamide	2.14	166.1		_2_68	6.5				1.4384	158	0.9415
N,N-Dimethylformamide	0.92	153	12	268	6.4		7.6		1.4305	136	0.9487
Dimethyl Sulfoxide _	2.24	189	9	268	7.2	0.62			1.4793	190	1.1004
1,4-Dioxane	1.37	101.32	17	215	4.8	0.56	11.7	0.51	1.4224	54	1.0336
Ethyl Acetate	0.45	77.11	19	256	4.4	0.58		0.48	1.3724	24	0.9006
Ethyl Alcohol	1.101	78.32		210					1.3614	59	0.7892
Ethyl Ether	0.24	34.55	23	215	2.8	0.38		0.43	1.3524	-49	0.7133
Ethylene Dichloride	0.79	83.48		228	3.5	0.49			1.4448	56	1.253
Heptane	0.42	98.43	29	200	0.1			0.01	1.3876	25	0.6837
Hexane	0.31	68.7	29	195	0.1	0.01		0.01	1.3749	-7	0.6594
Iso-Octane	0.5	99.24	29	215	0.1				1.3914	10	0.6919
Isobutyl Alcohol		107.7	15	220	4				1.3959	82	0.8016
Isopropyl Alcohol	2.4	82.26	15	A05	3.9	0.82	8.3	0.6	1.3772	53	0.7854
Isopropyl Myristate	---	__192.6							1.4332	327	0.8532
Methanol	0.59	64.7	12	205	5.1	0.95	1	0.7	1.3284	52	0.7913
Methyl t-Butyl Ether	0.27	55.2		210	2.5	0.35		0.48	1.3689	-1t	0.7405
Methyl Ethyl Ketone	0.43	79.64	17	329	4.7	0.51			1.3788	16	0.8049
Methyl Isobutyl Ketone	0.58	117.4		334	4.2	0.43			1.3957	64	0.8008
N-Methylpyrrolidone	1.67t	202		285	6.7				1.47	187	1.0304
Pentane	0.23	36.07		190	0	0		0	1.3575	-56	0.6262
Petroleum Ether					__O^{-1}				1.365	-57	0.64
n-Propyl Alcohol	2.3	97.2		210	4	0.82	10.1		1.3856	74	0.8037
Propylene Carbonate		241.7	_	220	6.1				1.421	275	1.2006
Pyridine	0.95	115.25	16		5.3	0.71			1.5102	68	0.9832
Tetrahydrofuran	0.55	66	17	212	4	0.45	3.7	0.53	1.4072	6	0.888
Toluene_	0.59	110.62	23	284	2.4	0.29		0.22	1.4969	40	0.8669
1;2,4-Trichlorobenzene		213.5	_	308					1.5717	222	1.454
Triethylamine	0.36t	89.5	-						1.401	16	0.7276
Trifluoroacetic Acid	0.93	71.8		210					1.285		1.489
Water	1	100		190	10.2				1.333		0.9982
o-Xylene	0.81	144.41		288	2.5	0.26			1.5054	63	0.8802

* at 15°C
† at 25°C
Missing values indicate data was not available.
Miscibility (M) number:
1. All pairs whose M numbers differ by 15 units or less are miscible in all proportions at 15°C:
2. Each pair whose M number difference is 16 has a critical solution temperature between 25 and 75°C, generally about 50°C.
3. A difference of 17 or more corresponds to immiscibility or to a critical solution temperature above 75°C.

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