MISCIBILITY OF ORGANIC SOLVENTS

The chart below gives qualitative information on the miscibility of pairs of organic liquids. Two liquids are considered miscible (indicated by **M** in the chart) if mixing equal volumes produces a single liquid phase. If two phases separate, they are considered immiscible (**I**). An entry of **P** indicates two phases whose volumes differ appreciably, suggesting a partial miscibility of the components. The symbol **R** indicates a reaction between the components. All data refer to room temperature.

The codes for the columns are:

A Acetone
B Benzaldehyde
C Benzene
D Butyl acetate
E Butyl alcohol
F Carbon tetrachloride
G 2-Chloroethanol
H Chloroform
I *o*-Cresol
J Diethyl ether
K *N,N*-Dimethylaniline
L Dipentylamine
M Ethyl alcohol
N Ethylene glycol
O Ethylene glycol monoethyl ether
P Formamide
Q Furfuryl alcohol
R Glycerol
S Methyl isopropyl ketone
T Nitromethane
U 1-Octanol
V 1,3-Propanediol
W Pyridine
X Triethylenetetramine
Y Triethyl phosphate

References

1. Drury, J. S., *Ind. Eng. Chem*. 44, 2744, 1959.
2. Jackson, W. M., and Drury, J. S., *Ind. Eng. Chem*. 51, 1491, 1959.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
Acetone	-	M	M	M	M	M	M	M		M	M	M	M	M	M	M	M	I	M	M	M	M	M	M	M
Adiponitrile	M		M		M	I				I	M		M	I		M	M	I				M	M		
2-Amino-2-methyl-1- propanol	M	M	M	M	M	M				M	M		M	M		M	M	M		M	M	M	M		
p-Anisaldehyde							M							I	M			I				I			M
Benzaldehyde	M	-	M	M	M	M				M	M		M	P		M	M	P		M	M	M	M		
Benzene	M	M	-	M	M	M	M	M		M	M	M	M	I	M	I	M	I	M	I	M	I	M	M	M
Benzonitrile	M		M		M	M				M	M		M	I		I	M	I				I	M		
Benzothiazole	M		M		M	M				M	M		M	M		I	M	I				M	M		
Benzyl alcohol	M	M	M	M	M	M				M	M		M	M		M	M	M		M	M	M	M		
Benzyl mercaptan	M		M		M	M				M	M		M	I		I	M	I				I	M		
2-Bromoethyl acetate	M		P					M				R	M						M					R	
1,3-Butanediol	M		I					M	M	P		M	M						M				M	M	
2,3-Butanediol	M		P					M	M	M		M	M						M				M	M	
Butyl acetate	M	M	M	-	M	M				M	M		M	P		I	M	I		M	M	P	M		
Butyl alcohol	M	M	M	M	-	M				M	M		M	M		M	M	M		M	M	M	M		
Carbon tetrachloride	M	M	M	M	M	-				M	M		M	I		I	M	I		M	M	I	M		
2-Chloroethanol	M		M				-		M	M		M							M				M	M	M
Chloroform	M		M				M	-		M		M	M	P	M			I	M			M		M	M
3-Chloro-1,2-propanediol	M		I					M	M	M		R	M						M				M	R	
Cinnamaldehyde	M		M				M	M				M	M	I	M			I	M			I		R	M
o-Cresol							M		-					M	M			M				M			M
Diacetone alcohol	M	M	P	M	M	P				M	M		M	M		M	M	I		M	M	M	M		
Dibenzyl ether	M		M				M	M				M		I	M			I	M					M	M
Dibutylamine							R							M	M			P							M
Dibutyl carbonate	M		M					M				M	M						M					I	
Dibutyl ether	M	M	M	M	M	M				M	M		M	I		I	M	I		I	M	I	M		
Diethanolamine	M	I	I	I	M	I				I	P		M	M		M	M	M		I	M	M	M		
Diethylacetic acid	M		M				M	M				R	M	M	M			I	M			M		R	M
Diethylene glycol dibutyl ether	M		M					M	M	M		R	M						M				M		
Diethylene glycol diethyl ether	M		M					M	M	M		M	M						M				M	M	
Diethylene glycol monobutyl ether	M		M					M	M	M		M	M						M				M	M	
Diethylene glycol monoethyl ether	M		M					M	M	M		M	M						M				M	M	
Diethylene glycol monomethyl ether	M		M					M		M		M	M						M				M	M	
Diethylenetriamine	M		M				R	M				I	M	M	M			M	R					M	M
Diethyl ether	M	M	M	M	M	M	M	M		-	M	M	M	I	M	I	M	I	M	M	M	I	M	M	M
Diethylformamide	M		M				M	M				R	M	M	M			M	M			M		R	M
Dihexyl ether	M		M				M	M				M	M	I	M			I	M			I		I	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
Diisobutyl ketone	M		M				M	M				M	M	I	M			I	M			I		M	M
Diisopropylamine	M		M				R	M				M	M	M	M			M	M			M		M	M
N,N-Dimethylaniline	M	M	M	M	M	M				M	-		M	I		I	M	I		M	M	I	M		
Dipentylamine	M		M					M		M		-	M	P	M			P	M			M		I	M
N,N-Dipropylaniline	M		M		M	M	M	M		M	M	M	M	I	M	I	M	I	M			I	M	M	M
Dipropylene glycol	M		M				M	M	M	M			M						M				M	M	
Ethyl alcohol	M	M	M	M	M	M		M		M	M	M	-	M	M	M	M	M	M	M	M	M	M	M	M
Ethyl benzoate	M	M	M	M	M	M		M		M	M	M	M	I		I	M	I	M	M	M	P	M	M	
Ethyl chloroacetate	M		M				M	M				M	M	I	M			I	M			I		R	M
Ethyl cinnamate	M		M					M				M	M	I	M			I	M			I		M	M
Ethylene glycol	M	P	I	P	M	I		P	M	I	I	P	M	-		M	M	M	I	I	M	M	M	M	
Ethylene glycol monobutyl ether	M		M					M	M	M		M	M						M				M	M	
Ethylene glycol monoethyl ether	M		M					M	M	M		M	M		-				M				M	M	
Ethylene glycol monomethyl ether	M		M						M	M		M	M										M	M	
2-Ethyl-1-hexanol	M	M	M	M	M	M				M	M		M	M		I	M	I		I	M	M	M		
Ethyl phenylacetate	M		M				M	M				M		I	M			I	M			I		M	M
Ethyl thiocyanate	M		M		M	M				M	M		M	I		I	M	I					I	M		
Formamide	M	M	I	I	M	I				I	I		M	M		-	M	M		M	I	M	M		
Furfuryl alcohol	M	M	M	M	M	M				M	M		M	M		M	-	M		M	M	M	M		
Glycerol	I	P	I	I	M	I		I	M	I	I	P	M	M		M	M	-	I	I	I	M	M	M	
1-Heptadecanol	M		M					M				M	M						M					M	
3-Heptanol	M		M				M	M				M	M	M	M			I				M		M	M
Heptyl acetate	M		M				M	M				M		I	M			I	M			I		R	M
Hexanenitrile	M		M				M	M				M	M	I	M			I	M			I		M	M
Isobutyl mercaptan	M		M		M	M				M	M		M	I		I	M	I				R	M		
Isopentyl acetate	M		M				M	M				M	M	I	M			I	M			I		M	M
Isopentyl alcohol	M	M	M	M	M	M				M	M		M	M		M	M	I		M	M	M	M		
Isopentyl sulfide	M		M		M	M				M	M		M	I		I	I	I				I	M		
Methyl disulfide	M		M		M	M				M	M		M	I		I	M	I				R	M		
Methyl isobutyl ketone	M	M	M	M	M	M				M	M		M	I		P	M	I		M	M	I	M		
Methyl isopropyl ketone	M		M				M	M		M		M	M	I	M			I	-			M		R	M
4-Methylpentanoic acid	M		M					M				M	M	M	M			I	M			M		R	M
Nitromethane	M	M	I	M	M	M				M	M		M	I		M	M	I		-	P	I	M		
1-Octanol	M	M	M	M	M	M				M	M		M	M		I	M	I		P	-	M	M		
o-Phenetidine	M		M				M	M				M	M	M	M				M			M		M	
1,2-Propanediol	M		I					M	M	P		M	M						M				M	M	
1,3-Propanediol	M	M	I	P	M	I		M	M	I	I	M	M	M		M	M	M	M	I	M	-	M	M	
Pyridine	M	M	M	M	M	M	M			M	M		M	M	M	M	M	M		M	M	M	-		M
Tetradecanol	M		M				M	M				M	M	I	M			I	M			P		M	M
Tributyl phosphate	M		M				M	M				M	M	P	M			I	M			M		M	M
Triethylene glycol	M		P					M	M	I		P	M						M				M	M	
Triethylenetetramine	M		M				M	M		M		I	M	M	M			M	R			M		-	M
Triethyl phosphate	M		M					M	M	M		M	M						M				M	M	-
2,6,8-Trimethyl-4-nonanone	M		M				M	M				M	M	I	M			I	M			I		I	M