Supplementary material

Influence of various cosolvents on the calcium oxide-catalyzed sunflower oil ethanolysis

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TABLE S-I. The properties of the employed cosolvents and ethanol

Cosolvent[*]	**TEOA**	**DEOA**	**EG**	**MEK**	**HEX**	**TEA**	**Glyme**	**GLYC**	**THF**	**DIOX**	**ET**
Chemical formula	$C_6H_{15}NO_3$	$C_4H_{11}NO_2$	$C_2H_6O_2$	C_4H_8O	C_6H_{14}	$C_6H_{15}N$	$C_4H_{10}O_2$	$C_3H_8O_3$	C_4H_8O	$C_4H_8O_2$	C_2H_6O
Boiling point (°C)[**]	335.0	268.0	197.6	79.6	68.0	89.7	83.5	290.0	65.0	101.1	78.5
Melting point (°C)[**]	21.5	28.0	-13.0	-86.0	-95.0	-115.0	-58.0	19.0	-108.3	11.8	-114.1
Density (g/cm^3)											
at 25°C	1.12[b]	–	1.11[b]	0.799[b]	0.656[b]	0.724[b]	0.865[b]	1.257[b]	0.88[b]	1.029[b]	0.787[b]
at 20°C	1.1242[c,e]	1.0966[c,e]	1.1088[c,e]	0.8054[c]	0.6593[e]	0.7275[c]	0.8691[c]	1.261[c]	0.8892[c]	1.0337[c]	0.7893[c]
Viscosity at 25°C	652.576[b];	109.5	17.645[b];	0.396[b];	0.296[b];	0.341[b];	0.446[b]	749.3[b];	0.465[b];	1.211[b];	1.057[b];
(mPas)	609[c]	(at 50 °C)	16.1[c]	0.405[c]	0.300[c]	0.347[c]		934[c]	0.456[c]	1.177[c]	1.074[c]
Partition coefficients	- 1.00[b];	- 1.43	- 1.36[b,e]	0.29[a,b,c,e,f]	3.90[b,e];	1.45 [a,b,c];	- 0.21[b]	- 1.76[b]	0.46	- 0.27[b,e];	- 0.31[b,e];
at 25°C (log*P*)	- 1.59[e];	(20 °C)[b,e]			4.0[a,c,f]	1.64[e]			(20 °C)[a]	- 0.49[f]	- 0.30[a,c]
	- 2.3[f]										
Refractive index at	1.4835[b]	1.4747	1.4306[b]	1.3764[b]	1.3723[b]	1.3980[b]	1.3781[b];	1.4730[b]	1.405[b,c]	1.4202[b]	1.3594[b]
25°C		(19 °C)[b]					1.3770[c]				
Dipole moment, D	3.57[c,d];	0.85[b]; 2.8[c]	2.31[b];	2.76[b];	0.00[b];	0.66[b,c]	1.71[b]	4.21[b];	1.63[b,f];	0.00[b,c];	1.69[b,c]
	3.48[f]		2.36[c];	2.779[c];	0.08[f]			2.56[c]	1.75[c];	0.45[f]	
			2.28[c]	2.78[f]							
Dielectric constant	29.36 (25	25.75[c]	41.4[c]	18.56[c]	1.8865[c]	2.418[c]	7.30	46.53[c]	7.52[c]	2.2189[c]	25.3[c]
(20 °C)	°C)[c,d]						(23.7 °C)[c]		(22.2 °C)		

[*]TEOA - triethanolamine, DEOA - diethanolamine, EG - ethylene glycol, MEK - methyl ethyl ketone, HEX - *n*-hexane, TEA - triethylamine, Glyme - ethylene glycol dimethyl ether, GLYC - glycerol, THF - tetrahydrofuran, DIOX - dioxane and ET - ethanol.[**]According to Material Safety Data Sheet. [a]ref [1]; [b]ref [2]; [c]ref [3]; [d]ref [4]; [e]ref [5]; [f]ref [6].

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