

Solvent Systems - Lipid Migration

| Lipids | Solvent System (Rf) [see chart for system] | | | | | |
|---------------------------------------|--|------|------|------|------|------|
| | i | ii | iii | iv | v | vi |
| Triglycerides | | | | | 0.70 | 0.96 |
| Free Fatty Acid | | | | | 0.51 | 0.16 |
| Diglycerides 1,2 | | | | | 0.70 | 0.24 |
| Diglycerides 1,3 | | | | | | 0.32 |
| Monoglycerides | | | | | | |
| Phosphatidylethanolamine | 0.79 | 0.55 | | 0.43 | | |
| Phosphatidyl (Monomethylethanolamine) | 0.71 | 0.41 | | 0.33 | | |
| Cardiolipin | 0.67 | 0.56 | 0.38 | | | |
| Phosphatidylglycerol | 0.60 | 0.50 | 0.31 | 0.36 | | |
| Phosphatidyl (Dimethylethanolamine) | 0.58 | 0.56 | | 0.27 | | |
| Phosphatidic Acid | 0.55 | 0.05 | 0.58 | | | |
| Phosphatidylinositol | 0.39 | 0.10 | | | | |
| Phosphatidylcholine | 0.34 | 0.30 | | 0.17 | | |
| Phosphatidylserine | 0.33 | 0.12 | | | | |
| Cerebrosides | 0.94 | 0.55 | | | | |
| Ceramides | sf* | sf* | | | | |
| Sphingosine | 0.28 | 0.75 | | | | |
| Sphingomyelin | 0.28 | 0.13 | | | | |
| Synthetic Cardiolipin | 0.29 | 0.20 | | | | |
| Lyso-Phosphatidylglycerol | 0.54 | 0.20 | | | | |
| Lyso-Phosphatidylethanolamine | 0.45 | 0.20 | | | | |
| Monolysocardiolipin | 0.45 | 0.34 | | | | |
| Lyso-Phosphatidic Acid | 0.40 | 0.01 | | | | |

(table continued)

Notes:

- Rf values represent relative migration only, whereas absolute values depend on various environmental parameters (e.g. temperature, humidity) which may vary depending on location.
- *sf – solvent front

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| Dilysocardiolipin | 0.32 | 0.21 | | | | |
| Lyso-Phosphatidylinositol | 0.29 | 0.03 | | | | |
| Lyso-Phosphatidylcholine | 0.22 | 0.08 | | | | |
| Lyso-Phosphatidylserine | 0.18 | 0.02 | | | | |

| Solvent Systems | | Ratio(V:V) |
|-----------------|--|------------|
| i | Chloroform:Methanol:Water | 65:25:4 |
| ii | Chloroform:Methanol:Ammonium Hydroxide | 65:25:4 |
| iii | Chloroform:Hexane:Methanol:Acetic Acid | 50:30:10:5 |
| iv | Toluene:Pyridine:Water | 60:60:10 |
| v | Cyclohexane:Ethyl Acetate | 3:2 |
| vi | Toluene:Chloroform:Methanol | 85:15:5 |

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