

ARI Scorpion Tip Compatibility Testing

The ARI Scorpion Chemistry work station has been purposed for Synthetic Chemistry labs that are beginning to harness the power of automated chemical transfers, high-throughput reaction optimizations, reaction miniaturization, and kinetic assay time point development.

We recognize that some labs may have a concern with chemical compatibility between commonly used organic solvents and the polypropylene tips. Even though solvents are only in contact with tips for a minimal time period on the Scorpion, we tested several commonly used organic solvents for tip compatibility by performing 120 x 1 mL transfers (time of contact ~ 15 minutes) between 30 mL glass dram vials and analyzing by HPLC, NMR, or both.

We have tested and are continuing testing for chemical leaching during usage.

Solvent	Tip Compatibility
HPLC Analysis	
Chloroform	Pass
Butyl Acetate	Pass
Ethanolamine	Fail
Toluene	Pass
Hexane	Pass
Dichloromethane	Pass
Methanol	Pass
Isopropyl Alcohol	Pass
NMR Analysis	
Acetonitrile	Pass
Dichloromethane	Pass
Tetrahydrofuran	Pass
Pentane	Pass

HPLC data were analyzed using Empower 2 software on a Waters Alliance HPLC with 996 PDA Diode array equipped with a C18 column. NMR data were analyzed for the signature of the extractables.