

Exploring Solutions, Solubility, and Solvents

Materials:

- Small test tubes
- Test tube rack
- Electrical conductivity tester (found in hardware stores)
- Alcohol
- Distilled water
- Xylene or toluene (found in hardware or paint store)
- Salt crystals
- Sugar crystals
- Paradichlorobenzene or naphalene crystals (moth flakes)

Procedure

- 1 Place each solvent (alcohol, water, or xylene) in a test tube and label accordingly. Approximately 1/2-inch is sufficient.
- 2 Test each solvent for electrical conductivity to be sure you don't have any contaminants. If one of the pure solvents shows conductivity, discard and obtain a new sample. None of the pure solvents should show any electrical conductivity.
- 3 Place a moth crystal in each and stir or swirl gently to see if it will dissolve. Record your results in your lab book.
- 4 Test each tube for electrical conductivity and record your results.
- 5 Repeat the procedure using sugar as the solute. Record your results.
- 6 Repeat the procedure using salt as the solute. Record your results.

Solubility			
	Sugar	Salt	Moth Flakes
Xylene			
Water			
Alcohol			
Conductivity			
	Sugar	Salt	Moth Flakes
Water			
Alcohol			
Conductivity			