

Determining the Volume of an Unknown Sample Using the Socorex Acura® Variable Volume Pipette

Abstract

Pipettes are used for aspirating and dispensing accurate volumes of liquid from one container to another. This procedure describes the use of a Socorex Acura® variable volume pipette to determine the volume of a sample. This procedure is used when a sample needs to be utilized for an experiment, and the scientist needs to determine if enough sample is available for the experiment. For example, a forensic scientist could determine if they have sufficient sample for a DNA experiment.

Materials

The materials required are quite modest. A direct-reading manual pipette such as the Socorex Acura Variable Volume, that can transfer a volume larger than the sample is required, as well as a clean pipette tip matching the pipette. Please note that not all pipettes can be used for this procedure. To test if your pipette works, use the appropriate procedure listed below for your pipette on a known volume of water.

Procedure

Place a clean disposable tip on the pipette. Set the volume to zero (some pipettes can't be set to zero - in this case, set the volume to the lowest setting allowed by the pipette). Place the tip in the sample and start twisting the volume setting so as to increase the volume without depressing the plunger. When the sample has been completely aspirated into the tip, read off the volume setting in the window on the pipette. The difference between the final volume and starting volume read off the pipette is the sample volume.

Results

Although this is a simple procedure, it provides a fast and convenient method to determine the volume in a sample. This works over the range of all Socorex Acura Variable Volume Pipettes.