

PIPETTE

MED 16.16



Material:

Item-no.	Qty.	Description
C1000-1H	1	Beaker glass, 1000 ml, low form, Borosilicate
C1577-1A	1	Pipette volumetric, 50 ml
P7050-1A	1	Powder dye, red

Purpose

Learning about a particularly useful application of underpressure to extract liquids from larger containers.

Preparation

Fill the beaker with 300 – 600 ml of coloured water.

Experiment 1

The pipette is slowly inserted into the liquid, the tip should reach to the bottom. Then pull out the pipette and observe whether liquid remains in the pipette.

Result

The liquid runs out of the pipette.



Experiment 2

Again the pipette is slowly inserted into the liquid, the tip should reach to the bottom. The upper opening of the pipette is now closed with the thumb or index finger. Afterwards pull the pipette out again and observe whether liquid remains in the pipette.

Result

Most of the liquid that was in the pipette when immersed remains in the pipette. If the opening is opened, the liquid runs out immediately.

If a larger quantity of liquid is to be lifted, air is sucked out with the mouth at the upper end of the pipette; as a result of more liquid is pressed into the pipette.

The opening must be closed quickly again afterwards.

Attention

This style of "pipetting" may only be done with non-hazardous liquids!

Experiment 3 (optional)

A mechanical pipetting device or a Peleus ball is placed on the upper opening of the pipette. This is used to slowly insert the pipette into the liquid.

Result

With the pipetting device, a precisely defined amount of water can now be drawn from the beaker.

With pipetting aids, you can precisely dose quantities and both withdraw liquids and drain off partial quantities.

Note

Pipettes have a marking for removing a certain volume.

Practical application

A "large type" of pipette is the wine lifter.

With this the winegrower takes small amounts of wine from barrels in order to check the maturity of the wine.

