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Micro-Spray

Catalog Number: 23625

Instructions for Use

Introduction:

The micro-spray is designed to produce fine droplets of spray from a liquid suspension placed within it. It is particularly valuable for virus suspensions and the spray is therefore designed in glass to facilitate thorough washing and autoclaving for sterilization. The PTFE gasket in the joint is a replaceable item if it should become damaged.

The normal mode of operation is to direct the spray downwards onto specimen grids lying on a surface. If the preparation is a dangerous one, and needs to be confined, the spray body may be secured to a suitable closed vessel via the screwed joint in the outlet tube.

This unit will operate with only 0.1 to 0.2ml of liquid and is therefore particularly suitable for concentrated virus preparations. It will yield droplets down to 1 micrometer in diameter.

Assembly

The blowball is attached to the air inlet tube of the spray. It is valved, so that air for the bulb is drawn from the atmosphere, and there is no suck back of the vapor from the spray. The hole in the top of the spray unit is closed by a rubber bung.

When the angled spray tube is being attached to the body of the spray, care should be taken to include the PTFE gasket in the screwed union to make a perfect seal.

Loading and Use

Remove the rubber bung and introduce the suspension to be sprayed by means of a disposable pipette into the body of the spray unit. The liquid suspension should not be allowed to touch the spray jet; it should be dropped into the bottom of the spray unit.

Replace the rubber bung. Place the angled spray tube 1 to 2cm above the carbon-coated electron microscope grids to be sprayed. See that the bottom tube of the spray gun dips into the liquid to be sprayed. Pump the blowball several times. The air jet from the blowball causes the liquid to rise up the capillary tube and to be vaporized in the jet. A fine mist can be seen at the end of the spray tube.

After use, wash the whole spray unit very carefully to remove all traces of the preparation. Rinse in distilled water and dry in a laboratory oven. Sterilize after use if virus preparations have been sprayed.