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**DEPARTMENT: MEDICAL LABORATORY SCIENCE**

**COURSE TITLE: LABORATORY GLASSWARE CLEANING**

**COURSE CODE: MLS 201**

**ASSIGNMENT TITLE: LABORATORY GLASSWARE CLEANING**

**QUESTION**

Describe the cleaning methods for 4 named laboratory glass wares

**ANSWER**

The laboratory glass wares are:

1. Test tubes
2. Graduated pipette
3. Petri dish
4. Microscope glass slides
5. **TEST TUBES**

A test tube, also known as a culture tube or sample tube, is a common piece of [laboratory glassware](https://en.wikipedia.org/wiki/Laboratory_glassware) consisting of a finger-like length of [glass](https://en.wikipedia.org/wiki/Glass) or clear [plastic](https://en.wikipedia.org/wiki/Plastic) tubing, open at the top and closed at the bottom. Test tubes are usually placed in special-purpose racks. In clinical medicine, sterile test tubes with air removed, called [vacutainers](https://en.wikipedia.org/wiki/Vacutainer), are used to collect and hold [samples of physiological fluids](https://en.wikipedia.org/wiki/Biological_specimen) such as [blood](https://en.wikipedia.org/wiki/Blood), [urine](https://en.wikipedia.org/wiki/Urine), [pus](https://en.wikipedia.org/wiki/Pus), and [synovial fluid](https://en.wikipedia.org/wiki/Synovial_fluid). These tubes are commonly sealed with a rubber stopper, and often have a specific additive placed in the tube with the stopper color indicating the additive.

**METHOD OF CLEANING TEST TUBES**

Use the text tube brush with hot soapy water. If you end up with stains which don't respond to this you can try soaking in acetone. Don't forget to rinse well in clean water. Remember that running water into the top of a full test tube won't affect what's in the bottom.

1. **GRADUATED PIPETTE**

Graduated pipettes are [pipettes](https://en.wikipedia.org/wiki/Pipette) with various volumes along the tube. It permits the transfer of precisely known volumes from one container to another.

**METHOD OF CLEANING GRADUATED PIPETTE**

Place pipette, tips down, in a cylinder or tall jar of water immediately after use. Do not drop them into the jar. This may break or chip the tips and render the pipets useless for accurate measurements. A pad of cotton or glass wool at the bottom of the jar will help to prevent breaking of the tips. Be certain that the water level is high enough to immerse the greater portion or all of each pipet. The pipets may then be drained and placed in a cylinder or jar of dissolved detergent or, if exceptionally dirty, in a jar of chromic acid cleaning solution. After soaking for several hours, or overnight, drain the pipets and run tap water over and through them until all traces of dirt are removed. Soak the pipets in distilled water for at least one hour. Remove from the distilled water, rinse, dry the outside with a cloth, shake the water out, and dry.

1. **PETRI DISH**

It is a shallow, circular, glass or plastic dish with a loose-fitting cover over the top and sides, used for culturing bacteria and other microorganisms.

**METHOD OF CLEANING PETRI DISH**

Mix 1/2 cup of Clorox (any 10 percent bleach solution will work) with 4 1/2 cups of warm tap water. You can mix more or less of the sterilization solution by remembering it one part bleach to nine parts water. Set the mixture aside. Using a soft, non-abrasive cloth, antibacterial dish soap and warm water, gently clean and rinse the Petri dishes. The Petri dishes should be free of all debris. Dry the Petri dishes with a soft, non-abrasive dry cloth that is set aside. Place the Petri dishes in the sterilizing oven, face up. Set the timer for two hours. After two hours, turn the oven off and allow the oven to cool prior to removing the glass Petri dishes. Remove the Petri dishes from the oven using sterile lab tongs. Do not allow your fingers or any unsterile material to touch the sterilized Petri dishes. Store the sterilized Petri dishes in a sterile area until next use.

1. **MICROSCOPE GLASS SLIDE**

It is a small flat rectangular piece of glass on which specimens can be mounted for microscopic study,

**METHOD OF CLEANING MICROSCOPE GLASS SLIDE**

Place a small drop of cleaning solution on each microscope slide. This can be dish washing fluid, or it can be a more specialized cleaning solution for slides, such as an ethyl alcohol solution. Apply the soap uniformly across both sides of the glass with something that won’t scratch the slide, such as a lint-free microfiber towel. Rinse the slide thoroughly using warm running water. Continue until all of the cleaning fluid is gone, including any extra bubbles that appear. Blot the slide with a paper towel until it is dry. Alternatively, you can dry the slides with microfiber towels. Make sure that the towel you use is clean for each new slide. You may have to switch to a new towel after a certain number of slides. Place each finished slide back into the slide case. If you try overloading the case with more slides than it can take, the slides could bang against each other and crack.