

Biochemistry laboratory

General properties and advantages of glass

- Glass has high chemical resistance against many substances, including acids, alkalis, organic solvents, saline solutions, and water.
- Additional advantages to using glass in the lab include its dimensional stability, even at high temperatures, and its transparency.
- Other advantages include that many sizes of laboratory equipment are available, and glass is easy to clean.
- It is suitable for reagent and chemical storage also.

Types of glass used in laboratory

- Soda-lime glass
- Borosilicate glass
- (Flint glass)

How to keep the lab glassware clean

- Clean the apparatus in cold water to ensure that any protein residues are removed.
- Then, soak the glassware in a disinfectant solution that is mixed at the correct dilution ratio.
- Use a bristle brush to remove any material adhering to the surface of the glass.
- Then soak again, or use an ultrasonic bath.
- Rinse the item in deionized water three times to remove any detergent that might be lurking.
- Drain on a rack, and then dry in a clean environment or a hot air oven.

Sample dispensers



Initial Glass Cleaning

- This is the first step in glassware cleaning.
- Scrape away any thick solid material from the glass if possible.
- Wipe away any grease from the glass joints with a solvent like acetone which can be used to help remove the grease.
- Put the glassware in a warm cleaning solution of detergent and water.
- Use a brush or cleaning pad to clean any residue or contamination.
- Rinse with tap water first, followed by deionized water and allow to dry.

Mild Cleaning Methods

- If the initial cleaning method fails try gentle solvents for long term soaking.
- When dealing with the gentle aqueous solutions heat soaking or, in some instances, mechanical agitation such as stirring, shaking, or sonication can enhance its productivity.

Glass cleaners

- Detergents are the best.
- They can be used for handwashing, soaking and automatic washer.
- Always use soft brushes.
- Always rinse glass well and do a final distilled water/deionized (DI) water rinse.

Maintenance of stock book

- A stock ledger is a detailed record kept by a company/institution to track movements of stock.
- The stock book assumes special significance to identify the chemicals/equipments/materials, then handling, proper storage and accuracy in accounting during issue are of paramount importance in the efficient operation of the laboratory.

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